Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

April 24, 1961

PYRETHRUM: WILL THE MARKET FLOWER?

OPD SPECIAL
'DEPTH' REPORT
PAGE THREE

Baker

CADMIUM SALTS

Chloride—Nitrate

Baker

J. T. BAKER CHEMICAL CO.
PHILLIPSBURG, N. J.
New York • Chicago • Philadelphia • Los Angeles

Pennsalt

AMINES

METHYL - ETHYL - PROPYL - BUTYL - AMYL

Industrial Chemicals Division
PENNSALT CHEMICALS CORPORATION
3 Penn Center, Philadelphia 2, Pa.

Pennsalt Chemicals
ESTABLISHED 1850

CARBIDE's

Ethanolamines

UNION CARBIDE
CHEMICALS COMPANY
DIVISION OF UNION CARBIDE CORPORATION
270 Park Avenue, New York 17, New York

STOP! For CSC Ethyl Alcohol

Available from coast-to-coast distribution points in any quantity. Fast delivery. Grades include the famed-for-quality Rossville trio (Hexagon®, Algrain®, Gold Shield®) plus 50 formulas of specially denatured alcohols, and the three CSC proprietary solvents (Shellacol®, Quakersol®, Quixol®).

COMMERCIAL SOLVENTS CORPORATION
260 Madison Avenue, New York 16, New York

RECEIVED
APR 24 1961
THE CHEMISTS' CLUB
LIBRARY

HIGH QUALITY

SODIUM SULPHATE

PRIOR CHEMICAL CORPORATION
420 LEXINGTON AVENUE
NEW YORK 17, N. Y.

CABLE: PRIORCHEM NEW YORK
PHONE: LExington 2-9811

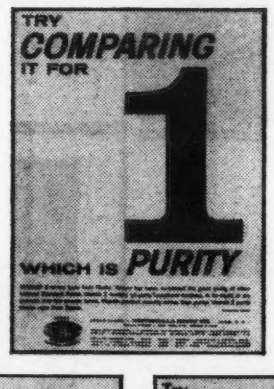
BORIC ACID

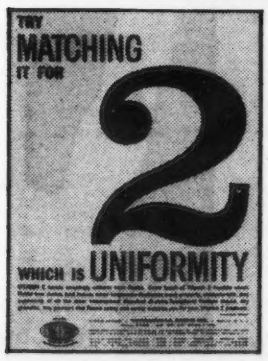
For prompt delivery, get it from ... U.S. BORAX

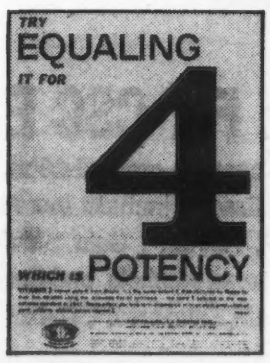
630 SHATTO PLACE, LOS ANGELES 5, CALIFORNIA

Distributors Conveniently Located in All Principal Cities

ROCHE
VITAMIN E
adds up to







Every Excellence Expected... Right from ROCHE

ROCHE® © 1960 HLR INC.

VITAMIN E
ROUND THE WORLD COMES RIGHT FROM ROCHE

FINE CHEMICALS DIVISION • **HOFFMANN-LA ROCHE INC** • NUTLEY 10, N. J.
NOrth 7-5000 • NEW YORK CITY: OXford 5-1400
IN CANADA: HOFFMANN-LA ROCHE LTD., 1956 BOURDON STREET, ST. LAURENT, MONTREAL 9, P. Q.
AFFILIATED COMPANIES: BASEL • BOGOTA • BOMBAY • BRUSSELS • BUENOS AIRES • GRENZACH (GERMANY)
ISTANBUL • JOHANNESBURG • LONDON • MADRID • MEXICO CITY • MILAN • MONTEVIDEO
PARIS • RIO DE JANEIRO • STOCKHOLM • SYDNEY • TOKYO • VIENNA • AGENCIES IN OTHER COUNTRIES

Oil, Paint and Drug Reporter

Vol. 179 No. 17 30 Church St., New York 7, N. Y. April 24, 1961

PYRETHRUM'S FLOW TO THE US

Extract Rising, Flowers On the Wane

	Flowers	Extract
*1961	1,200,000 lbs.	650,000 lbs.
1960	1,256,000 lbs.	589,000 lbs.
1959	993,000 lbs.	552,000 lbs.
1958	4,706,000 lbs.	252,000 lbs.
1957	5,517,000 lbs.	88,000 lbs.
1956	4,697,000 lbs.	150,000 lbs.
1955	4,797,000 lbs.	155,000 lbs.
1954	6,915,000 lbs.	72,000 lbs.

*Estimate

Source: Tariff Commission

Pyrethrum, a Dull Market Item In the Early Fifties, May Reach $15 Million in Sales by 1965

Pyrethrum sales, which should hit $7 million this year, could more than double that total in 1965, reaching nearly $15 million. Growth of the market for this material, extracted from daisies with an affinity for the salubrious climate of Africa, is even more astounding in view of the fact that it hasn't been going anywhere in terms of sales until recently. In fact, pyrethrum was relegated to the kennels with such assorted canines as sabadilla seed, derris root and the arsenates during the early fifties while, at the same time, synthetic organic insecticides such as DDT and BHC rode herd over a rapidly-expanding market. But during the last three years, pyrethrum has been getting up steam.

OPD 'Depth' Report

Optimists in the trade, in fact, estimate that the market in the US alone could rise by as much as 20 percent a year. Five general factors are believed to be involved in the resurgence.

Insects Yes, People No

- Pyrethrum is selective; that is, it is toxic to insects but relatively harmless to humans and other warm-blooded creatures, contrary to other insecticides in wide use today.
- It's readily available. During the past few years, the government—which stockpiled the stuff as strategic during emergencies—released 342,808 pounds of extract, adding to total available supply.
- Insects do not develop resistance to it, contrary to their behavior toward DDT and some other synthetics. Pyrethrum has been used as an insecticide since the early 19th century. Only a few isolated cases of insect resistance have cropped up in all that time.
- Growth of home gardening, both ornamental and food, during the past three or four years has called for an effective bug-destroyer, harmless to plants and humans. The answer: pyrethrum.
- Not to be overlooked, of course, is the growth of the insecticide business as a whole, with corresponding increases in educational programs, more advertising and more widespread application of pesticides in order to lessen crop damage and get rid of annoying household insects.

While the prediction of $15 million in sales for 1965 is only an estimate of what could happen to the pyrethrum market, a study of comparisons for the years 1959-60 will show concretely what's going on now, and why some people are so optimistic.

Consumption in 1960 rose 18.7 percent over that in 1959. Reducing flowers to an extract basis, and adding government

—Continued on page 56

PYRETHRUM SALES

*1965	$15.0 million
*1961	$7.0 million
1960	$6.0 million
1959	$5.3 million
1958	$3.8 million
1957	$2.6 million
1956	$2.9 million
1955	$3.0 million
1954	$2.9 million

*Estimate

Source: Tariff Commission. Government sales not included.

US Pyrethrum Refiners

Fairfield Chemicals, a division of Food Machinery & Chemical Corporation.*
McLaughlin Gormley King Company.
S. B. Penick & Co.
Prentiss Drug & Chemical Company.

* Currently the only US extractor.

Alkali Industry Is the First Target In Gov't Probe of Chemical Pricing

The alkali industry appears to be the first Department of Justice target in a broad-scale investigation of chemical industry pricing policies. Antitrust hearings began in Philadelphia last week, and while there is no official government comment on the proceedings, it is unofficially reported that chlorine, caustic soda and soda ash are coming under the scrutiny of the federal grand jury there. The hearings now under way follow an inquiry that led to the conviction of twenty-nine companies are forty-four individuals in the heavy electrical industry.

The chemical hearings, according to some observers, will very likely cover a wide area and could last six months or more.

What Triggered Federal Probe?

Alkali producers, like the Justice Department, are saying nothing at the moment. Nevertheless, it is believed that the federal probe was triggered by state investigations in New York and California of chlorine cylinder price-fixing at the jobber level.

The Philadelphia grand jury reportedly has issued subpoenas to alkali companies demanding all sorts of documents relating to the bidding or sale of these chemicals.

In this connection, OPD has learned that city officials in Cincinnati, Ohio, dissatisfied with the results of recent invita-

—Continued on page 38

FARM CHEMICALS MANAGER: John A Foster, named general manager of agricultural sales by Collier Carbon & Chemical Corporation, Los Angeles.

Corn-for-Alcohol Program To Be Operating Shortly

A corn-for-alcohol program has been approved by the Department of Agriculture and will be put into operation shortly.

Reported plans are to sell about 1 million bushels of surplus corn a month to distillers with a history of converting molasses into alcohol for the production of industrial alcohol.

The price will range between 40 and 50 cents a bushel.

A number of conditions will be imposed on successful bidders, one of them being a limitation on the amount of profit that can be made on the transaction. Contracts will be subject to renegotiation. Another condition is that the alcohol shall not be used for production of whiskies and other potable products.

Spencer Building Unit For Polyethylene Latex

Spencer Chemical Company is set to extend its polymer stake via a new polyethylene latex plant at its Chicago (Calumet City) Works. The plant, a 20-million-pound-a-year unit, will cost $1 million.

The Kansas City, Mo., company plans to start construction on the plant sometime next month. Completion has been scheduled for January.

Spencer is already piloting a group of

—Continued on page 52

Oxo Plant Scheduled To Rise in Delaware

Tidewater Oil Company and Air Products, Inc., will build an oxo alcohol plant adjacent to Tidewater's Delaware City, Del., refinery. The plant, with a planned capacity of 60 million pounds a year, will make iso-octyl, decyl and tridecyl alcohols.

Tidewater will provide the raw materials and will operate the plant. Air Products will provide design engineering for the plant and will have sales responsibility for its products.

Start-up date for the plant is as yet indefinite, pending cost, construction and other studies. However, it's believed the unit will be on stream in "well under" two years' time.

At the same time, Reichhold Chemicals,

—Continued on page 41

WESTERN SALES PRESIDENT: R. H. McGough, formerly general manager of agricultural chemical sales for Collier Carbon & Chemical Corporation, who has been made president of Western States Chemical Corporation, Los Angeles.

US Warned Not to Hog Patents Lest It Blunt Research

If the government wants to avoid blunting incentive to technological progress in the chemical industry, it had better think twice before reserving for itself all the fruits of research conducted by private industry with federal funds.

This was the warning sounded to the McClellan patents committee of the senate last week on behalf of the Manufacturing Chemists' Association by Augustus B. Kinzel, vice-president for research of Union Carbide Corporation, New York, and echoed for industry generally by Dr. Carl E. Barnes of the Minnesota Mining & Manufacturing Company, St. Paul Minn., speaking for the Chamber of Commerce of the United States.

The committee is studying two bills before it to extend the philosophy of patent rights flowing from the use of federal funds, which is contained in the aeronautics and space act and the atomic energy act, to all activities of the government.

These two laws lodge all patent rights to inventions developed with federal funds in the hands of the government.

Mr. Kinzel pointed out that in the system of free enterprise in this country, incentive is probably the most important factor.

"When by contract, all patent rights are to become the sole property of the government," he said, "the incentive to invent and patent is very seriously reduced. It is not in the public interest to require, on an automatic basis, that government departments obtain all patent rights."

He noted that there are certain equities in the situation that should be recognized by the government, the most important being that when a company undertakes a research project for the government, it is because it has the experience or a staff competent to deal with the subject.

"So, the government saves all the effort, all this time, and all this money, by starting its project not at the beginning," he

—Continued on page 38

Common Market Doesn't Have Common Policy on Fats and Oils

The Common Market countries of Western Europe—Belgium, Luxembourg, Netherlands, Italy, France and West Germany—are having trouble getting together on a common fats and oils policy. As a consequence, it appears to the Foreign Agricultural Market Service of the Department of Agriculture that a unified policy in this commodity area may be a long time off. This is important news to the US fats and oils industry, which has a big stake in the way these problems are settled by the six nations.

The Common Market buys about half the US cottonseed oil exported, one-third of the soybeans, most of the flaxseed and linseed oil, 45 percent of the tallow and grease, over 10 percent of the soybean oil and an increasing share of the oilseed meal.

Euromart Policy Expectations

It is generally expected that Common Market policies will favor the continuation of a high level of trade in fats and oils. But, in the meantime, a unified policy is likely to be delayed because of the wide separation in policies and interests of the individual countries, and also because of many changes in conditions since January, 1958, when the Common Market came into being.

FAS says that among the things on which a unified policy will depend is the reaching of agreement in four important areas: the future relationship of the Common Market with the former African territories of France and Belgium; the olive oil situation in Italy; the effect of rising butter production on margarine in the Common Market, and rapeseed production in France and Western Germany.

The Common Market's future association with Africa, a matter of considerable uncertainty at present, is one of the main reasons why the fats and oils policy has been delayed. Some of the newly independent countries of Africa are among the world's major exporters of fats and oils, FAS points out.

For example, former French West Africa and the former Belgian Congo are major exporters of peanuts, peanut oil, palm kernels and palm oil. However, production in the former French territories

—*Continued on page 54*

Jefferson Has Polyethers Coming From New Place

Jefferson Chemical Company now has polyethers for the urethane industry coming from another place in Texas: Conroe, where the company has just gone into production of the materials. The new output supplements existing facilities at Austin.

Company headquarters in Houston announces that the products are designated: "Polypropylene Glycol "400," "Polypropylene Glycol 2000," "Triol G-400," "Triol G-700," "Triol G-1500," "Triol G-3000" and "Triol G-4000."

Dimethyl Ether to Be Available in Tankcars

Dimethyl ether, not now available to industry in tankcar quantities, will be produced commercially by Commercial Solvents Corporation at its Sterling, La., plant. CSC's methanol, ammonia and nitroparaffins facilities are also located there.

Dimethyl ether has potential uses as a complexing agent for boron trifluoride and as a selective solvent for a wide variety of materials.

It is also of particular interest as an aerosol propellant because of its noncorrosive qualities and unique solubility characteristics. CSC likewise suggests its use as a refrigerant and as a raw material in synthesis.

The physical properties of dimethyl ether include a mild odor, a low boiling point, a low order of toxicity and chemical stability.

A gas at ordinary temperatures, it will be shipped in pressure tankcars at 11 cents a pound, f.o.b. Sterlington. It will also be available in small cylinders for sample purposes.

Interchemical Plant Started

Interchemical Corporation, New York, has started construction of a new plant in the Arrowood development in Charlotte, N. C. The facility will have manufacturing, laboratory, office and storage facilities for three leading Interchemical divisions: finishes, printing ink, and color and chemicals.

Antara Is in a New Field: Water-Emulsion Copolymers

Antara Chemicals, a division of General Aniline & Film Corporation, New York, has gotten into a new field: water-emulsion copolymers.

To be available initially in development quantities only, the materials will be marketed under the trade name "Polectron." The first three products in the new series of water-emulsion copolymers of vinylpyrrolidone are:

"Polectron 130," a vinylpyrrolidone/ethyl acrylate copolymer emulsion; "Polectron 430," a vinylpyrrolidone/styrene copolymer emulsion, and "Polectron 450," another vinylpyrrolidone/styrene copolymer emulsion. Each has a 40 percent solids content.

According to Antara, the "Polectron" series opens up new possibilities for

—*Continued on page 36*

The Week's Price Changes

Cadmium Salts, Cocoa Butter, Soybean Oil Advanced. Greases, Peanut Oil, Soybean Meal, Tallow, Tin Reduced.

Prices Advanced

Cadmium chloride, 7½c. per lb. (p. 35).
Cadmium nitrate, 3c. to 5c. per lb. (p. 35).
Coconut oil, crude, ¼c. per lb. (p. 53).
Cocoa butter, 2c. per lb. (p. 53).
Copra, $5 per ton (p. 53).
Linseed meal, $1 per ton (p. 53).
Soybean oil, crude, ¼c. per lb. (p. 53).
Refd., ¼c. per lb. (p. 53).

Prices Reduced

Greases, ¼c. per lb. (p. 53).
Peanut oil, crude, ½c. per lb. (p. 53).
Refd., ½c. per lb. (p. 53).
Soybean meal, $1 per ton (p. 53).
Tallow, inedible, ¼c. per lb. (p. 53).
Tung oil, ¼c. per lb. (p. 53).
Tin metal, 1c. per lb. (p. 35).
Salts, ½c. to ⅝c. per lb. (p. 35).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

April 21, 1961	April 14, 1961	April 22, 1960
113.02	113.02	110.36

Oral Vaccine by Oct. 1: Pfizer

Chas. Pfizer & Co. expects to be ready by October 1 with 50 million doses of the new Sabin-type oral polio vaccine—enough to immunize 17 million Americans. So John E. McKeen, Pfizer president, revealed to stockholders of the Brooklyn, N. Y., firm at its annual meeting last week. A year from now, Mr. McKeen is confident that his company will have produced 150 million doses of the monovalent vaccine for the American market—as well as "additional millions of doses sufficient to meet the anticipated requirements of many other nations."

Samples of the Pfizer vaccine have been submitted to government agencies in the United States, England and Japan, and a number of there countries are also interested in the oral polio vaccine.

Pfizer Vaccine to Be Made in England

The Pfizer oral vaccine will be made at its plant in Sandwich, England, where it has been doing developmental work since 1959.

The oral vaccine was developed by Dr. Albert Sabin of the University of Cincinnati. It is produced from attenuated living strains of polio virus. This compares with the Salk killed-virus vaccine, which is administered by injection.

Pfizer supplied vaccine for a community-wide immunization program which got under way in Harrisburg, Pa., earlier this month. Close to 100,000 persons were vaccinated in the program, conducted un-

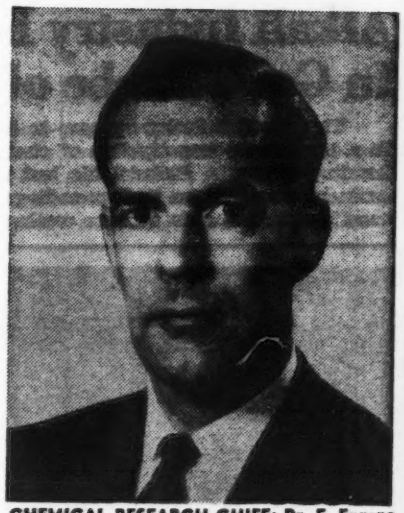
—*Continued on page 55*

Polyester Fiber Prices Cut Sharply by Celanese

Celanese Corporation of America has posted price reductions ranging from 5.3 percent to 9.5 percent in "Fortrel" polyester fiber. The cuts match those posted a week earlier by E. I. duPont de Nemours & Co. for "Dacron."

Under the new schedule, effective immediately, staple and tow are quoted as follows:

Three denier, $1.24 a pound, down from $1.36; 4.5 denier, $1.24 a pound, down from $1.31, and six denier, $1.24 a pound, down from $1.31. Prices of 1.5 denier staple have been reduced from $1.26 to $1.14 a pound.



CHEMICAL RESEARCH CHIEF: Dr. E. Eugene Fisher, appointed director of chemical research by the A. E. Staley Manufacturing Company, Decatur, Ill.

Dow Picks Foster Wheeler To Build 'Styron' Facility

Award of a final contract for construction of a new "Styron" production plant in Leghorn, Italy, has been announced by Dow Chemical International, Ltd. SA, a unit of Dow Chemical Company, Midland, Mich.

The manufacturing facility will be built by Foster Wheeler Italiana of Milan. The plant will consist of polymerization units,

—*Continued on page 62*

Index to News and Market Reports

Association News

AIC to Honor Van Doren..... 52
CMRA Speakers Slated..... 7
Detergent Survey Reports Sales Up..... 38
Mattiello Lecturer: Dr. Jordan..... 7
Paint Men to Meet May 4..... 59

Government News

Additives Deadline Extended..... 7
Alkali Trade Target of Gov't Probe.... 3
Alum Dumping Charge Rejected..... 59
Antibiotics Approved by FDA..... 50
Corn-for-Alcohol Program Revealed..... 3
Drug Bill Seen Trade-Encompassing.... 5
GSA Seeks Molybdenite Bids..... 62
US Warned on Patent-Hogging..... 3
Water Pollution Bill Is Anti-Chemical... 5

Industry News

Antara Enters Water-Emulsion Field.... 4
Antioxidant Expansion Completed at Ethyl 5
Banner Markets Acrylic Sealers..... 52
Chlorine Linked to Caustic Surplus..... 35
Citric Market Growth Foreseen..... 5
Dimethyl Ether Going Commercial..... 4
Dow Picks "Styron" Unit Contractor.... 4
Dow Sets Up Technical Service Unit.... 36
Elastomers Output Up in 1960..... 7
Fluorocarbon Resin in Test Market..... 59
Gardner Chemicals Formed..... 59
Geigy Develops Brightening Agent..... 52
Hitchcock Offers Brochure..... 36
Industrial Biochemicals Has New Unit.. 5
Interchemical Plant Started..... 4
Jefferson Starts Polyethers Unit..... 4
Kaiser Refractories Starts Up New Unit 36
Krebiozen Study Slated..... 55
McKesson & Robbins Form New Unit.... 7
Maleic Anhydride Unit on Stream..... 36
Metal Hydrides Appoints Sales Agent... 36
Natural Gas Products Plant Slated..... 5
Oral Vaccine from Pfizer Near..... 4
Oxo Unit in Delaware Slated..... 3
Parke, Davis Offers Antipinworm Drug.. 50
Perchlor Maker Aims at New Market.... 5
Pfizer Sets Up Proprietary Unit..... 50
Polyester Fiber Prices Cut..... 4
Polymer Emulsion Introduced by UBS... 52
Pyrethrum Boom Seen..... 3
Pyrethrum 'Depth' Report..... 3
Extraction Unit Capacity..... 56
Imports of Flowers, Extract Charted.. 3
Prices: Eight-Year Review..... 56
Refiners Listed..... 3
Sales Projected to 1965..... 3
Radiation-Shield Patent Awarded..... 36
Southern Oxygen's Merger Okayed..... 7
Spencer Plans PE Latex Unit..... 3
Tall Oil Rosin Price Reduced..... 59
Virginia Chemicals Selling Stock..... 55
'Wildroot' Plant to Close..... 7
Wisconsin Group Develops Insecticide... 5

International News

Butyl Rubber Plant in UK Slated..... 5
Chemical Trade Outlook Discussed..... 7
Coating Materials: Jap Market Assessed.. 5
Common Market Needs Fats, Oils Policy. 4
Esso, ICI Expanding Overseas..... 7

Personnel News

Collier Carbon Names Foster..... 3
Dow Appoints Doscher..... 5
Metalsalts Names Delany..... 36
MM&R Elevates Four..... 55
United Carbon Appoints McKay..... 5
US Borax Elects McCloskey..... 7
Valchem Appoints Temple..... 55
Western States Names McGough..... 3

Market Reports

Acids..... 35
Agricultural Chemicals..... 57
Aliphatic Organics..... 40
Aromatic Chemicals..... 60
Botanical Drugs, Gums..... 50
Coal Chemicals..... 42
Coating Materials..... 58
Drugs..... 44
Essential Oils..... 61
Fats & Greases..... 54
Fertilizer Materials..... 57
Fine Chemicals..... 44
Heavy Chemicals..... 35
Industrial Organic Chemicals..... 40
Metals, Nonferrous..... 35
Naval Stores..... 59
Oil Cake and Meal..... 54
Oils..... 53
Paint Materials..... 58
Pesticides..... 57
Petrochemicals..... 40
Petroleum Derivatives..... 39
Protective Coating Materials..... 58
Spices..... 61
Trade Name Chemicals..... 39
Waxes..... 54

General Features

Advertisers' Index..... 66
Association Meeting Dates..... 7
Bids Wanted..... 66
Classified Advertisements..... 66
Coal Chemical Output..... 43
Crude Oil Stocks..... 39
Current Market Quotations..... 11
Editorials..... 9
Imports..... 67
Obituaries..... 37
OPD 'Depth' Report: Pyrethrum..... 3
OPD Price Index..... 4
OPD Reports From Europe..... 7
Washington Talks It Over..... 9

OIL, PAINT AND DRUG REPORTER, Vol. 179, No. 17, April 24, 1961. Published weekly on Monday by Schnell Publishing Company, Inc., 30 Church Street, New York 7, N. Y., U.S.A. Second-Class postage paid at New York, N. Y. Single copy price: 50 cents. Subscription prices:—United States and Possessions, $5 a year; Canada and Newfoundland, $7; other countries, $12. Copyright, 1961, Schnell Publishing Company, Inc.

RUBBER PLANT MANAGER: Charles M. McKay, named general manager of the United Carbon Company's synthetic rubber plant in Baytown, Tex.

WARF Back Again With a New Insecticide

Wisconsin Alumni Research Foundation, already noted for its development of "Warfarin," is in the picture once again with a new insecticide, called "Butonate," and has assigned rights for manufacture and distribution to Prentiss Drug & Chemical Company, New York.

The product, described as a new insecticide of very low mammalian toxicity, has just been registered by the Department of Agriculture.

"Butonate" is chemically o,o-dimethyl 2,2,2-trichloro-1-butyryl-oxyethyl phosphonate.

The insecticide will be made available by the licensee to formulators and pest control operators.

It may be used in aerosols and in contact and residual sprays against household and industrial insects such as flies, gnats, mosquitoes, roaches and silverfish.

In laboratory studies with white rats, "Butonate" has shown extremely low mammalian toxicity — approximately 1,100 mg/kg of body weight when administered orally. Its relatively light odor is easily masked by various aromatic agents recommended by the manufacturer. The chemical can be used with practically all of the common organic solvents, and may be formulated as an oil spray, an emulsion or a wettable powder.

Prentiss is a formulator and distributor of pesticide concentrates for pest control operators and formulators throughout the world. The company was one of the first commercial organizations to realize the advantages and market potential of "Warfarin" rodenticides, and is one of the two concerns licensed by the research foundation to manufacture and distribute "Warfarin" in the pesticide industry.

Industrial Biochemicals Puts Facility on Stream

A new producer of gluconic acid and sodium gluconate — Industrial Biochemicals, Inc.—is now on stream with its 4.5 million-pound-per-year plant in Edison, N.J. The company is reluctant to disclose any process details other than that it is utilizing automated processing techniques permitted by novel fermentation innovation.

Major technical breakthrough is Industrial Biochemical's spray dried sodium gluconate. Claimed to be the only spray-dried material on the market, its advantages are its free-flowing, low-dusting granular character and rapid solution rate.

Drug Makers in for Surprise From the Kefauver-Celler Bill: Everybody Is Under Its Wing

Drug manufacturers are in for a surprise when they examine the Kefauver-Celler drug industry antitrust bill in detail. The measure has been offered with the announced aim of bringing about increased competition and lower prices in the prescription medicine field through a system of compulsory licensing. But the bill's provisions are so broad that they embrace the entire drug industry—and that includes the proprietary as well as the ethical manufacturers.

This was discovered last week by industry lawyers going through the bill, section by section, as indications became apparent that neither of its sponsors—Sen. Estes Kefauver of Tennessee nor Rep. Emanuel Celler of New York—has any immediate plans for early action on the legislation. This raises the probability of a considerable delay before it is scheduled for hearings.

Committees Have the Bill—But

The bill—identified as S 1552 in the senate and HR 6245 in the house—has been shunted off for study to the antitrust subcommittees headed by the two sponsors. Both committees, however, are now occupied with other matters that will preclude any consideration of the bill at this time.

The house antitrust committee has hearings and other business scheduled for itself, and that will take up to June 9 to complete.

The Kefauver committee, currently probing the electrical equipment industry, has not revealed its work schedule but is said to have enough other business to carry it through the month of May if not longer.

The success of Messrs. Kefauver and Celler in getting congress to look with favor on the far-reaching legislation will depend in great measure on the position taken by the Kennedy administration on the bill.

This policy stand is now being weighed. The bill has been forwarded to the Departments of Commerce, Justice, and Health, Education & Welfare, and to the Federal Trade Commission for formal reports.

Presumably, the policy of the administration will be laid down in these reports. Normal procedure is for the Bureau of the Budget to review all departmental reports on pending bills before they are submitted to congress, to make certain that they conform to the "program of the President."

The reports of HEW and FTC will be the most interesting of the four to the drug industry because HEW Secretary Abraham Ribicoff is believed to favor the milder Flemming-Larrick factory inspec-

—Continued on page 34

Perchloroethylene Cleaner: It Will Not Be Cleaned Out

Perchloroethylene, the old-time dry cleaner, is not going to be cleaned out of its rightful place in the market by any new-type dry cleaner.

Such seems to be the idea in Pittsburgh, Pa., where an awful lot of the stuff is made, and the chemical division of Pittsburgh Plate Glass Company is determined to do something about preserving its market.

Pittsburgh Plate Glass is apparently attempting to meet the threat of a new high-safety fluorocarbon cleaning agent, which was developed by E. I. duPont de Nemours & Co., originally called "Fascilene," (OPD, 3/27/61) and later (OPD, 4/3/61) renamed "Valclene."

Here is how Pittsburgh Plate Glass describes its latest development:

"A new, technological concept which will lower the cost of dry cleaning by enabling the manufacture of machines using

—Continued on page 62

DOW MANAGER IN EUROPE: Charles M. Doscher, appointed general manager for the European area by Dow Chemical International, Ltd., SA, Midland, Mich.

Citric Market Growth Seen in New Process

Chas. Pfizer & Co., Brooklyn, N. Y., has developed a new one-coat porcelain enameling process that may open up a broad new market for citric acid. Patent No. 2,981,633, which will be issued by the US Patent Office tomorrow (April 25), claims the use of citric acid in porcelainizing metals.

Known as the Pfizer "Citrobond" process, the new system uses citric acid for pickling instead of the sulfuric acid commonly employed in the conventional two-coat process.

According to Pfizer, pickle baths charged with dry-water-soluble citric in quantities of a pound per gallon eliminate the need for a ground coat and allow direct application of the cover-coat enamel with a single fire.

While the Pfizer "Citrobond" process is used with non-premium type steels, it is especially recommended for the new low-carbon direct-on steels. On the ba-

—Continued on page 59

Butyl Rubber Plant 'First' To Be Erected in England

A butyl rubber plant, reportedly the first in England, will be built for Esso Petroleum Company, Ltd., this year by Foster Wheeler, Ltd. The cost will be $12.5 million and production will amount to more than 25,000 tons of the elastomer per year.

The installation will be located at Esso's Fawley refinery, near Southampton, Hampshire, England. New ethylene-butadiene production facilities at the site are currently under construction by Foster Wheeler. By inter-scheduling the labor and equipment for both plants, the builder expects to complete the field work within twelve months.

Coating Materials: Japanese Market Remains Big One

Although Japan has become self-sufficient in finished coatings products, the country will continue to provide an important raw materials market for urethanes, epoxies and the newer polyesters.

This was reported last week by Donald F. Koenecke, research associate with Enjay Laboratories, Linden, N. J., who has just returned from an extended tour of Japan and the Philippines.

The paint business in Japan, said Mr. Koenecke, is a highly dynamic and modern enterprise, turning out some 60 million gallons a year. Paint output in the Philippines was estimated at 3.5 million gallons.

Most emphatic raw material needs in Japan are for epoxies and styrene-butadiene resins, Mr. Koenecke reported. The Japanese are now paying about double the US price for these materials, he said.

Vinyl-Steel Laminate Potential

According to Mr. Koenecke, Japanese sources have estimated the country's vinyl-steel laminate potential at 10 billion square feet a year.

If Enjay's "Buton" (styrene-butadiene) resins were used to protect the back as a 2 mil coating, this would represent an 8.5-million-pound market, it was noted.

Favoring Japan's use of "Buton" resins and epoxies is the comparatively large percentage of industrial paint sales—60 percent of total paint sales as against 40 percent in the US.

In Japan and the Philippines, Mr. Koenecke noted, interior and exterior house painting is not a common practice.

Rigid polyester pipe, using such inexpensive fillers as paper and asbestos, has been developed by one Japanese manufacturer for use in water waste and hot-spring-water transportation, it was reported.

For applications where greater caustic resistance or higher strength is required, glass-reinforced "Buton" has been introduced.

Although most of Japan's electrical panelboard uses phenolic resin as a binder, new quartz-filled "Buton" compositions promise to compete with them in quality and at a lower price, Mr. Koenecke said.

Natural Gas Products: Conoco Will Build Unit

Continental Oil Company says it will construct a $1.75 million natural gas products plant at Hennessey, Okla., about fifty miles northwest of Oklahoma City. The facility, which will have a processing capacity of 30 million cubic feet of gas daily, will be owned 50 percent by Conoco. The remaining 50 percent will be shared by other firms and individuals in Oklahoma.

The unit will produce propane, butane and natural gasoline products and will sell its residue gas under contract to the Oklahoma Natural Gas Company, Tulsa.

Construction of the plant will start in about a month, with completion expected this fall, according to L. F. McCollum, president of Continental Oil. The plant owners also intend to construct some fifty-five miles of gathering pipeline in the area.

The installation will be located about a mile south of Hennessey in Kingfisher

—Continued on page 65

Antioxidant Facilities Of Ethyl Expanded

Ethyl Corporation—all a-bustle in Orangeburg, S. C.—has just completed a major expansion in production facilities for its ortho-alkylated antioxidants.

Headquarters in New York reports that the move will almost double capacity for its principal antioxidants. In addition, the new facilities will enable Ethyl to produce, in commercial quantities, other ortho-alkylated chemicals with potentially important industrial applications.

Water Pollution Bill Gains—It's Strictly Anti-Chemical

A new water pollution control law, in sharp disagreement with the aims and aspirations of the chemical industry, may be well on its way towards passage by congress.

The house public works committee has given its approval to a slightly modified version of the Blatnik water pollution bill (HR 4036) and reported the measure to the house for passage.

It is expected that a special rule for the measure's early consideration will be sought from house leaders.

The bill pretty much follows the recommendations made to the committee by Secretary Abraham Ribicoff of the Department of Health, Education & Welfare. These were far from being in accord with those that had been registered with the committee earlier by the chemical industry.

For one thing, the committee followed the recommendations of Mr. Ribicoff and the theme of the original bill, which called for expanding federal pollution abatement enforcement authority to all navigable waters, and providing that orders issued by the Secretary of HEW shall be final unless upset by the courts.

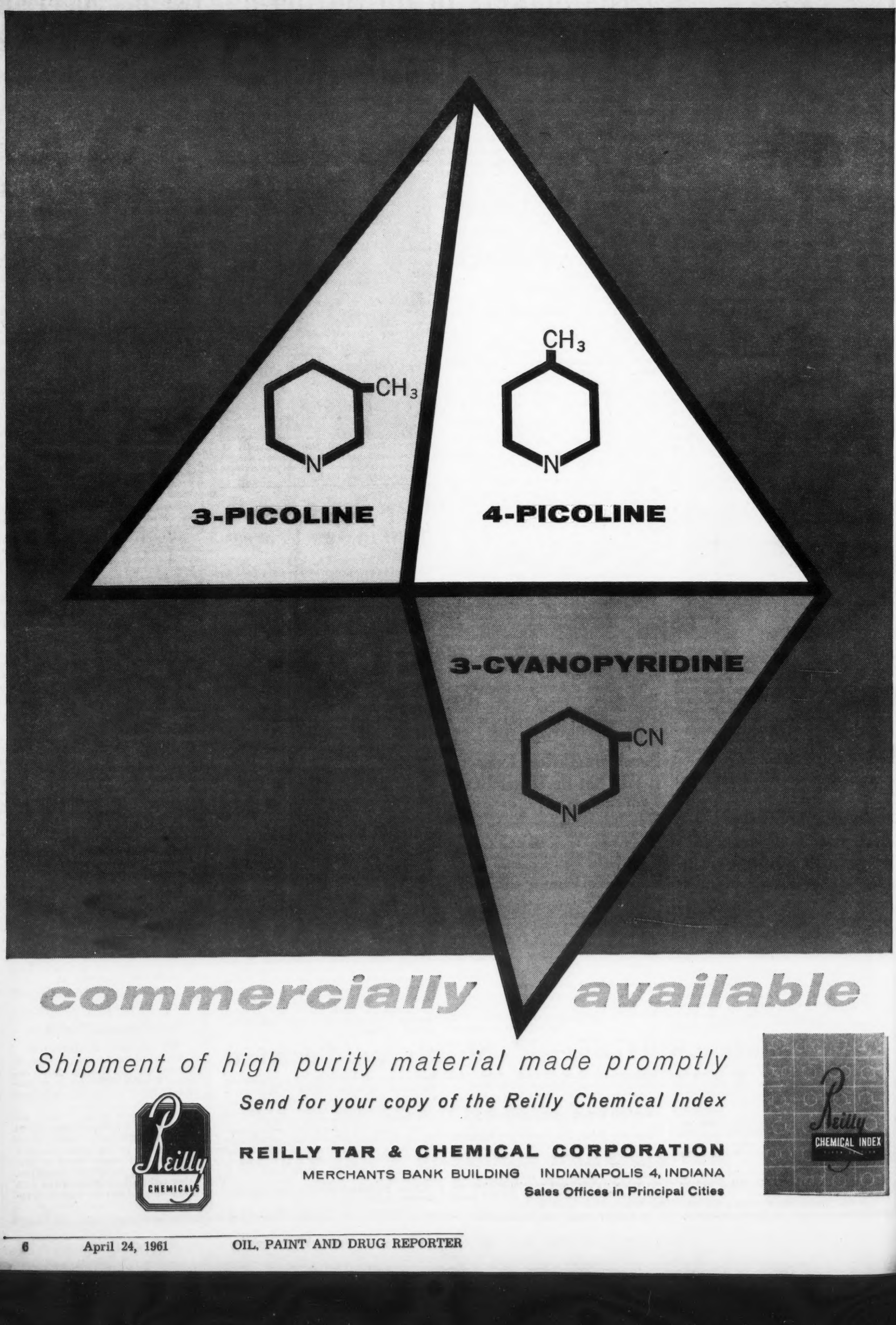
In another break with the chemical industry recommendations, the committee increased the authorization of appropriations for waste-treatment works construction grants from $50 million to $100 million annually for the next ten years.

The chemical industry favored retention of the present law ceiling of $50 million, but was willing to go to $75 million. The Blatnik bill proposed $125 million and the $100 million agreed upon was a compromise.

Other important present law changes provided in the bill are these:

- The maximum allowable grant for a

—Continued on page 36



commercially available

Shipment of high purity material made promptly

Send for your copy of the Reilly Chemical Index

Reilly CHEMICALS

REILLY TAR & CHEMICAL CORPORATION

MERCHANTS BANK BUILDING INDIANAPOLIS 4, INDIANA

Sales Offices in Principal Cities

Additives: Want Time?

Looking for a food additives extension? Food & Drug Administration has just laid down the conditions for getting one under the food additives law.

All extensions and petitions for more time which were pending on March 6 have been automatically extended until July 1 by the agency.

However, any extensions beyond that date will depend upon data supplied with the requests for more time.

FDA says it will entertain immediately requests for extensions beyond July 1 for both food additives and certain agricultural chemicals (nematocides, plant regulators, defoliants and dessicants).

All that's needed, the agency adds, is the following data:

- **The specific name (not trade name) or chemical designation of the substance involved, the specific use or uses for which an extension is desired, and the amount and purpose of the substance involved in each such usage.**
- **A statement detailing actions taken and dates thereof to determine the applicability of the food additives amendments to such use or uses or to develop the scientific data necessary for action, together with the results of such actions to date.**
- **A statement outlining additional work in progress, detailing its nature, when started, by whom it is being conducted, and the results to date.**
- **A statement of the amount of time for which further extension is needed. (Include only the time expected to be needed to determine**

—Continued on page 34

OPD Reports From Europe

Esso (BTX), ICI (Maleic) Latest Of Europe's Organics Expansions

European expansion of organic intermediates capacity—particularly aromatics, maleic anhydride and phthalic anhydride—continues on apace. Esso Nederland, part of the Standard Oil Company (New Jersey) empire, is building an $18 million petrochemical plant near Rotterdam to produce benzene, toluene and xylenes. Britain's Imperial Chemical Industries, Ltd., on a frenzied construction spree, says it will now erect a maleic anhydride facility at Wilton. These projects follow on the heels of disclosures (OPD, 4/17/61) by (a) Grange Chemicals that it will be the first UK producer of phthalic via orthoxylene and (b) ICI that it will produce its own naphtha for the firm's three olefins plants at Wilton.

Esso's Dutch Installation

Esso's Dutch installation will have an initial capacity of 220,000 metric tons of aromatics annually. This, says the company, makes it the biggest in Europe and one of the largest units ever built. Construction will start this year and completion is scheduled for mid-1963.

ICI's maleic anhydride plant, which will have a design capacity of about 10,000 tons a year, will use a new process which oxidizes butene with air.

Grange Chemicals' PA plant, due to be erected somewhere near the Isle of Grain in Kent, will be England's first unit to

—Continued on page 34

IN MARKET DEVELOPMENT POST: Dr. A. L. McCloskey, appointed to the newly-created post of associate director of market development and technical service of United States Borax & Chemical Corporation, Los Angeles.

'Wildroot' Plant Closing

Colgate-Palmolive Company will close its "Wildroot" plant in Buffalo, N.Y., and incorporate production of the hair tonic into the operations of other cosmetic plants throughout the country. The step is being taken to carry production closer to the various markets.

Southern Oxygen's Merger With Air Products Okayed

A merger of Southern Oxygen Company, Bladensburg, Md., into Air Products, Inc., Allentown, Pa., has been approved by directors of both companies.

Announcement of the proposed merger took observers by surprise, coming as it did immediately after word that protracted merger discussions between Southern Oxygen and Spencer Chemical Company had been terminated (OPD, 4/17/61).

Approval of the merger will be request-

—Continued on page 66

Chemical Shipments to Europe Not Menaced by Common Mart, But Imports Here Seen Rising

US chemical makers need fear no deterioration—sudden or progressive—in the volume of their exports to Europe consequent upon the formation of the European Common Market. However, as the economic and industrial unity of the area progresses, chemical shipments to this country doubtless will be stepped up, correcting the trade imbalance that now exists. These views were presented by Ernest-John Solvay, chairman of Solvay & Cie., Brussels, in a speech before the American section of the Societe de Chimie Industrielle in New York last week.

Occasion was presentation to Mr. Solvay of the group's first International Palladium Medal.

Stimulus to Trade

Far from damaging American export trade in chemical products, Mr. Solvay said, "the progressive economic unification of Europe and the growing strength of its chemical industry have, in fact, provided a remarkable stimulus to trade."

He noted that from 1950 to 1959 the export of American chemical products to western Europe more than tripled. As to the Common Market countries, US chemical exports rose from a value of $80 million in 1953 to $290 million in 1959.

For a long time to come, Mr. Solvay said, Europe will have to supplement its own inadequate output of synthetic organics by imports from the US.

Moreover, all newly-introduced commercial chemicals will find a ready market in Europe until higher consumption justifies the construction of local facilities.

On the other hand, as a counterbalance to the increasing exports of such products to western Europe, the US is expected to play a diminishing role as a supplier of inorganics and other established products.

Pointing up the need for a more serious readjustment, Mr. Solvay predicted that western Europe would "certainly seek to reach some sort of balance in its trade with the US by increasing its exports to that country."

Efforts from the Europaen side on this matter, he said, will be concentrated on traditional products for which conditions

—Continued on page 59

MATTIELLO LECTURER: Dr. Louis Arnold Jordan, an international authority on protective coatings technology, who will present the 1961 Joseph J. Mattiello memorial lecture at the thirty-ninth annual meeting of the Federation of Societies for Paint Technology in Washington in November.

CMRA Meeting Program: Key Speeches by Key Men

Talks on key market areas will be given by key men from the chemical industry at the twenty-first annual meeting of the Chemical Market Research Association, scheduled for May 17 and 18 at the Plaza hotel, New York.

These are the topics, and the speakers:

Elastomers—M. J. Rhoad, manager for rubber and rubber chemical products in the chemical division of Goodyear Tire & Rubber Company.

Synthetic fibers—Dr. L. F. Salisbury, assistant manager of technical service in the fibers division of E. I. duPont de Nemours & Co.

Fertilizers—E. H. Smythe, marketing director for the agricultural division of American Cyanamid Company.

The chlor-alkali industry—L. Grant, general chemicals sales manager for Dow Chemical Company.

Pharmaceuticals—F. J. Stock, vice-president in charge of marketing for the

—Continued on page 41

Elastomers Output Up Just a Bit for '60

Paced by a 9 percent gain in acyclics, production of elastomers (synthetic rubbers) in 1960 reached 2,952 million pounds, up slightly from the 2,825 million pounds turned out in 1959.

Sales of elastomers, as reported last week by the Tariff Commission, amounted to 2,551 million pounds in 1960, valued at $698 million. This was up from 2,601 million pounds, valued at $693 million, the year before.

Output of rubber-processing chemicals, in contrast, declined 5 percent, totaling 200 million pounds, as compared with 210

—Continued on page 59

McKesson & Robbins Forms Unit for Proprietary Drugs

McKesson & Robbins, Inc., New York, has organized Norcliff Laboratories, Inc., to manufacture and market a line of proprietary drug products.

Norcliff products will include a number of trade-marked health and beauty products which will be extensively advertised and promoted nationally.

Brands to be offered by Norcliff will be announced at a later date when packaging

—Continued on page 62

Association Meetings

American Chemical Society, national meeting, Chicago, September 3-8.

American Coke & Coal Chemicals Institute, eastern regional meeting, Westchester Country Club, Rye, N. Y., May 15-16.

American Institute of Chemical Engineers, joint meeting with Chemical Engineering Division of Chemical Institute of Canada, Sheraton-Cleveland hotel, Cleveland, Ohio, May 7-10.

American Institute of Chemists, annual meeting, Statler hotel, Washington, D. C., May 10-12.

American Oil Chemists' Society, annual meeting, Sheraton-Jefferson hotel, St. Louis, Mo., May 1-3.

American Pharmaceutical Association, annual convention, Sherman hotel, Chicago, April 23-28.

American Zinc Institute, annual meeting, Drake hotel, Chicago, May 1-2.

Animal Health Institute, annual meeting, Mayflower hotel, Washington, D. C., April 24-26.

Association of Food & Drug Officials of the United States, annual conference, Mayflower hotel, Washington, D. C., June 18-23.

Chemical Market Research Association, annual meeting, Plaza hotel, New York, May 17-18.

Chemical Specialties Manufacturers Association, midyear meeting, Drake hotel, Chicago, May 15-17.

Commercial Chemical Development Association, annual outing, Bedford Springs hotel, Bedford Springs, Pa., May 24-25.

Drug,Chemical & Allied Trades Association, annual meeting, Pocono Manor Inn, Pocono Manor, Pa., September 14-17.

Federation of Societies for Paint Technology, annual meeting, Shoreham and Sheraton-Park hotels, Washington, D. C., November 2-4.

Flavoring Extract Manufacturers Association, annual meeting, Savoy-Hilton hotel, New York, May 14-17.

Manufacturing Chemists' Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 8-10.

National Agricultural Chemicals Association, annual meeting, Homestead, Hot Springs, Va., October 29-November 1.

National Chemical Exposition, sponsored by the Chicago section of the American Chemical Society, International Amphitheater, Chicago, September 5-8.

National Paint, Varnish & Lacquer Association, annual meeting, Statler-Hilton hotel, Washington, D. C., October 30-November 1.

National Plant Food Institute, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 11-14.

Pharmaceutical Manufacturers Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., April 30-May 3.

Society of the Plastics Industry, western section conference, del Coronado hotel, Coronado, Calif., April 26-28.

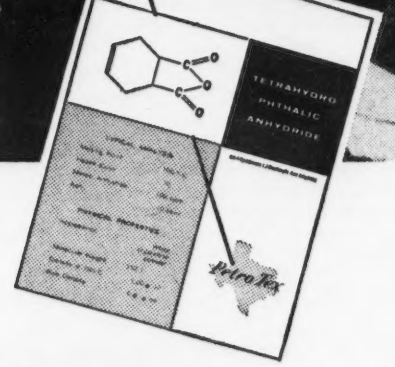
Society of the Plastics Industry, national conference, Commodore hotel, New York, June 5-9.

Synthetic Organic Chemical Manufacturers Association, spring outing, Skytop Lodge, Skytop, Pa., May 22-24.

Toilet Goods Association, annual convention, Waldorf-Astoria hotel, New York, May 9-11.

Now—*Petro-Tex* Tetrahydrophthalic Anhydride

30′ Pearson Fiberglass Cruiser photographed at White Griffith Marine



Have *you* tried this interesting anhydride in *your* polyester, alkyd or plasticizer formulations?

Petro-Tex can currently supply car-load quantities of Tetrahydrophthalic Anhydride in 250# fiber drums.

With major capacity to produce Maleic Anhydride and Butadiene, Petro-Tex will have captive supplies of the two starting components for Tetrahydrophthalic Anhydride.

Write for your copy of our technical data brochure on Petro-Tex Tetrahydrophthalic Anhydride.

Inquiries are also invited on:

BUTADIENE	**n-BUTENE-1**	**DIISOBUTYLENE**
ISOBUTYLENE	**n-BUTENE-2**	**TRIISOBUTYLENE**

Petro-Tex®

PETRO-TEX CHEMICAL CORPORATION

8600 PARK PLACE, HOUSTON 17, TEXAS

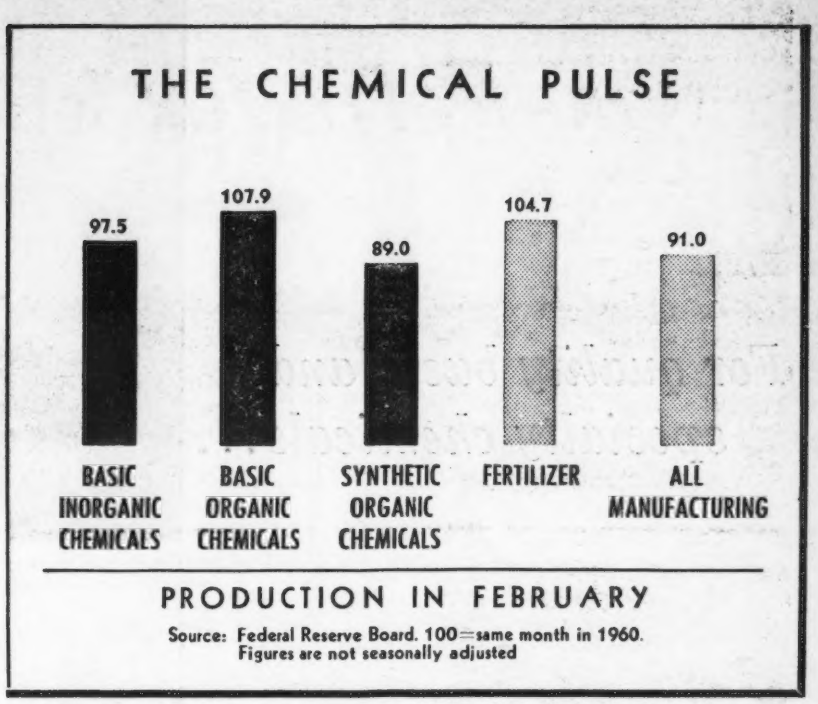
Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

Founded October 18, 1871 by William O. Allison
Directed 1900-1942 by Harry J. Schnell
EDITOR AND PUBLISHER: William S. Auchincloss
ASSISTANT PUBLISHER: J. Stuart Auchincloss
MANAGING EDITOR: Arthur R. Kavaler
TECHNICAL EDITOR: Edwin M. Fisher
NEWS EDITOR: Gene Gasteiger
OPD SPECIAL REPORTS: Don L. Richards
MARKETS: Andrew C. Barchi, John L. Casey, Richard Consolas, James Gubitosi, Jacqueline Hudgins, Harvey McCormick, Harry Van
IMPORTS: Mary Van Grieff
CONSULTING EDITOR: Hugh Craig
WASHINGTON EDITOR: Ralph L. Cherry, 956 National Press Building, Washington 4, D.C.
EUROPEAN EDITOR: Clare M. Cotton, 26A Wellington Road, London NW 8, England
SCHNELL PUBLISHING COMPANY, INC., 30 Church Street, New York 7, N. Y.
(RE 2-9820) Cable Address: Reporter, New York
PRESIDENT: William S. Auchincloss
VICE-PRESIDENT: Jean Schnell Auchincloss
TREASURER: William S. Auchincloss
ASSISTANT TREASURER: Ruth D. Johnson
SECRETARY: Anne L. Koch
ASSISTANT SECRETARIES: J. Stuart Auchincloss, Sara Jane Auchincloss

Copyright 1961 by Schnell Publishing Company, Inc.
Member of Audit Bureau of Circulations

Volume 179 April 24, 1961 No. 17



What Good Is It

Now that its page-wide headlines have gone the way of such outbursts, the reported orbiting of the earth by a Russian in a spaceship is being variously evaluated in the rest of the world, with a deal of doubt being expressed as to its reality. The British press, in spite of some high-echelon comment on the matter, began expressing doubts about ten days ago. Several days later, a member of the lower house of the US congress told the chairman of its committee on science and astronautics that there was evidence that the Russian claim "may be a hoax."

He was called a headline-hunter by a "rocket expert" from Germany; but his suspicions were reflected in published comments by prominent students of world affairs. And he urged the science-astronautics committee to ask the President to "request the Soviet Union to permit an international team of experts to review all technical data involved in the claim."

But, up to a week ago there had been no challenge of the claim from any "official or authoritative" source—for reasons that can at least be guessed to have some relation to White House announcements that American stations had tracked some rocket and spaceship and the President had cabled congratulations to Moscow.

There are many in the free West who are of the opinion that the Moscow mob scenes and hullabaloo over the "space hero" were motivated by Khrushchev persuasions, necessitated by some personal problems of state. Many cannot see any reasonableness in his comparing the "hero" to Columbus, in view of the fact that the latter confirmed the existence of what are now homelands for several hundred millions of human beings; while the spaceman's "discovery" cannot be expected to be of any help to anyone—except Khrushchev.

In what way can anyone be humanitarianly benefitted by any "conquest of space?" Why, in the name of common sense, should the United States spend anything like the suggested twenty-five to forty billion dollars in an effort to outdo the Soviets in the race for that useless conquering—including getting first to the moon?

Of course, nobody can tell Russia that it would be doing something really worthwhile if it would give to its political satellites some decent measure of the attention—especially the financial—that it is giving to space satellites.

But, it should not be necessary to tell the government of the United States that the place to spend billions is not in any areas of space science of any sort but in the areas on the inhabited face of the earth where there is an obvious pressing need for the humanitarian application of social and economic service science that will assist in the needed improvement of living conditions.

There seems to be some discrepancy in reports as to just when the Russian prideful space-shipping was done. But, it was April 14 when the White House made an announcement in which the people of the United States can justly find reason for real pride — that the navy was sending a team of experts to Ethiopia to help the International Health Organization and the Red Cross combat an outbreak of yellow fever.

Health Assurance

The American public is currently being offered all manner of plans of health insurance—governmental, professional and commercial. What it really needs is a properly designed and implemented program of health assurance. There is much more difference between the two health services than the fact that their designations do not start with the same two letters.

What US Sen. Hubert Humphrey had to say about the inadequacy of and the need for preventive medical service, as reported in the article beginning on page 4 last week, has a most important bearing on the topic of health assurance.

It was quite close to three hundred years ago that an English jurist declared that "prevention is better than cure," an opinion that was much more recently stressed in the popular quotation, "An ounce of prevention is worth a pound of cure," which motivated men to carry a horsechestnut in a pocket to stave off "rheumatiz" and mothers to hang a small cloth bag containing asafetida around the neck of a child when he or she started back to school in September.

Perhaps in today's trend in this country toward the idea and goal of a welfare state, the senator's budgetary idea may be the best basis for the providing of adequate, effective health assurance. But, everybody who has any knowledge, acquired at any hand, of the conflicting respective views, theories and other pronouncements of the Department of Health, Education & Welfare and the national medical autocracy will have numerous, various doubts that a governmental program would—or could—get anywhere.

Can there be an adequate development of effective teamwork on the part of the national medical, pharmaceutical and chemical organizations, each of which has an essential role in the development and especially the application of the services which efficient preventive medicine demands?

The congressional unit headed by Sen. Humphrey has done a commendable job in the task to which it is directed. Its reported results should be most seriously studied by every leader at every level in the medical profession, which must determine what is to be and can be done—and do it; in the pharmaceutical industry, which must provide the "tools" for that doing; in the pharmacal profession, which must make those essentials available where and when they are needed—and in the chemical industry, which must take care efficiently of the needs in the various areas of contributory sanitation—or lack thereof.

It must be realized that the public health staffs and facilities of the federal government must be made adequately available in all the operations of the essential teamworkers. From that arises the very pertinent question—"How can that relationship be effectively attained and cooperatively maintained?" It is to be hoped that adequate assistance in that direction will be provided in the second part of the report by Sen. Humphrey's committee. A full measure of advisory guidance and assistance toward that end should be given to the committee by everyone in every field of medicine, pharmacy, and chemistry who has any degree of applicable qualification. The assurance of health fully deserves such contributive service from everybody.

Washington Talks It Over

The President Is Thinking About a Possible Easing of US Policy on Trade With the Soviets, And Is Causing Chemical Men to Fret Over Losing a Precious Asset: Know-How.

By Ralph L. Cherry
Washington Editor

The Kennedy administration is reported to be reviewing government policies on trade with the Soviet bloc and may soon announce an easing of restrictions. If true, this comes as disturbing news to the chemical business.

The industry has a big stake in the outcome and is watching developments closely, while standing by its announced position of opposition to any softening of restraints on exports of chemical know-how.

The rumors of a possible change in export control policies have been in circulation for some time, but have been difficult to pin down. Their elusiveness is due to the fact that relations between the US and the USSR blow hot one week and cold the next, depending upon the rise and fall of East-West tensions on the international scene.

That some changes may be on the way, however, seems likely, judging by the activity going on. Whether they will be in the direction of relaxing controls or simply modifying export control procedures to avoid a repeat performance of the ball-bearing fiasco of last February, however, remains to be seen.

Leaders in the chemical industry say that exports of products to the Soviets is one thing, but the export of chemical industry know-how is another and one that should be avoided.

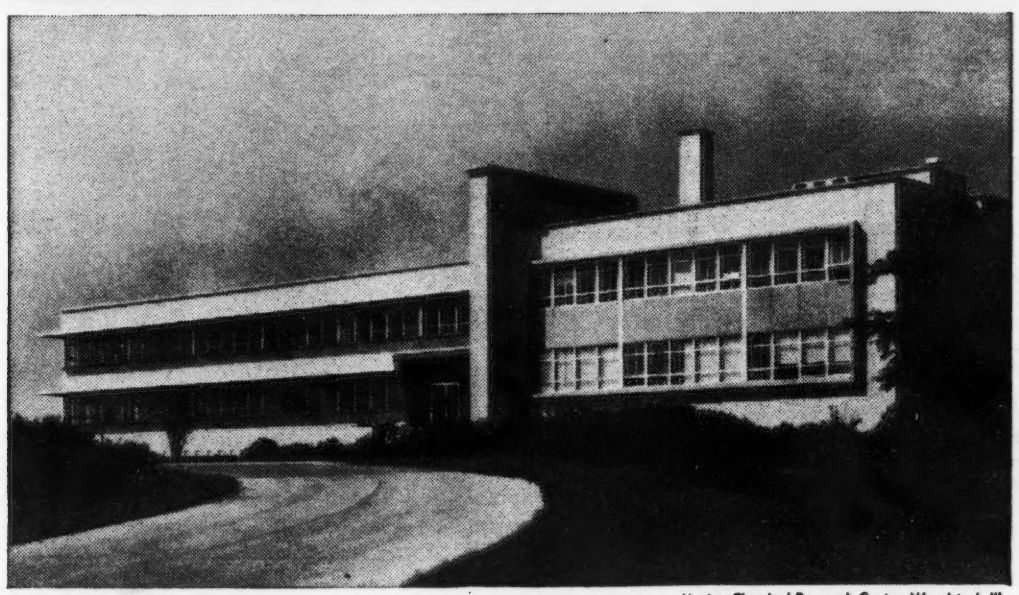
The industry is up against some heavy arguments from the other side, however, that are making its position difficult to maintain. Other western powers are showing little reluctance to sell know-how as well as products to the Communist bloc —and unquestionably a lot of that know-how was obtained from the US.

Either those countries' policies should be brought into line with ours or we should modify our policies accordingly, it is argued.

One change in policy that appears imminent is the publication of the names of exporters shipping under special license to the Soviet bloc. Rep. John Moss of California has been advised by Secretary of Commerce Luther Hodges that the policy of keeping the names of these exporters secret is about to be ended after twenty years.

For quality basic and specialty chemicals...

For problem-solving tech service...



Morton Chemical Research Center, Woodstock, Ill.

call your Morton Man

Product performance problems? Process troubles? Delivery schedule headaches? Need technical service? Your Morton Man can help... with high-quality basic and specialty chemicals. You'll also get the valuable benefits of the Morton Research and Technical Service Team. Learn the full story about these remarkable Morton resources today.

ALLYL ISOTHIOCYANATE (Mustard Oil)	ELASTOMAG MAGNESIUM OXIDE	BENZOTRIAZOLE	ORTHO-PHENYLENEDIAMINE
AMMONIUM THIOSULFATE (60% Solution)	BASIC MAGNESIUM CARBONATE	SALT CAKE	PHLOROGLUCINOL
MODIFIED POLYSTYRENE LATICES FOR FLOOR POLISHES	ACRYLIC EMULSIONS FOR FLOOR POLISHES	DIAZO COMPOUNDS	MURIATIC ACID (Hydrochloric Acid)

MORTON CHEMICAL COMPANY
Chicago 6, Illinois

CHICAGO
110 N. Wacker Drive
Chicago 6, Illinois
Financial 6-6760

NEW YORK
17 Battery Place
New York 4, N.Y.
WHitehall 4-4285

NEW ORLEANS
P. O. Box 1464
New Orleans 5, La.
Tel. 524-6511

Contact your Morton Man today at the sales office nearest you!

CHEMICALS AND RELATED MATERIALS

All matters under this heading fully protected by copyright.

Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, April 21 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil cns. ..... lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde, 99%, dms., c.l., frt. alld. lb. .12 - —
dms., t.c.l., frt. alld ..... lb. .13½- —
tanks, frt. alld ..... lb. .10 - —
Acetaldehyde prices 1c. higher in West.
Acetaldol (see Aldol)
Acetanilide, tech. flaked, bbls., bgs., c.l., frt alld lb. .32½- —
bbls., bgs. ton lots, frt. alld. lb. .33½- —
bbls., bgs., smaller tots, frt. alld lb. .36½- —
USP bbls. 225-lb dms. any quantity lb. .90 - —
100-lb. dms., any quantity lb. .92 - —
Acetic acid, comi., or redist., 28%, bbls 100 lbs 4.80 - —
56%, bbls. ..... 100 lbs 8.25 - —
70%, bbls. ..... 100 lbs 9.95 - —
80%, bbls. ..... 100 lbs.10.45 - —
Acetic acid, glacial, syn., CP, dms., c.l., dlvd. E 100 lbs. 18.75 - —
tech., dms., c.l., dlvd. E. 100 lbs. 13.75 - —
dms., t.c.l., dlvd. E ... 100 lbs. 15.25 - —
tanks, dlvd. E ..... 100 lbs. 10.00 - —
USP, tanks, dlvd. E ... 100 lbs. 13.00 - —
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½- —
aluminum ret dms., t.c.l., dlvd E. lb. .18 - —
tanks, dlvd. E. lb. .14 - —
Acetic anhydride prices 1c. higher in West.
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib. dms., t.c.l., dlvd lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib. dms., t.c.l., dlvd lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib. dms., t.c.l., dlvd ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd. lb. .10½- —
dms., t.c.l., dlvd ..... lb. .12 - —
tanks, dlvd. ..... lb. .08 - —
Acetonitrile, dms., c.l., frt. alld lb. .34½- —
dms., t.c.l., frt. alld ..... lb. .36 - —
tanks, frt. alld ..... lb. .32 - —
Acetophenetidin, USP, powd., 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb dms. 1,000 lbs., frt. alld. lb. 1.22 - —
Acetophenone, cns. dms ..... lb. .42 1.30
Tech., dms., c.l., works ..... lb. .32½- —
dms., t.c.l., works ..... lb. .34 - —
tanks, works ..... lb. .30 - —
N-Acetyl-p-aminophenol, dms., t.l. (min 23,000 lbs.), frt. adjusted lb. 1.30 - —
dms., 1,000-lb. lots, same basis lb. 1.40 - 1.45
dms., 100-lb. lots, same basis ... lb. 1.54 - 1.57
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 —
cs., t.c.l., ex whse ..... lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 —
Acetylsalicylic acid, USP, cryst (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l. pt. of shipt lb. .56¼- —
USP 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .56¼- —
(Pink and green granulations 5c. per lb higher.)
Freight equald. shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms. c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., t.c.l., frt. alld. E. of Denver lb. .36½- —
tanks. frt. alld. E of Denver. lb. .33 —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., t.c.l., frt. alld. E. of Denver lb. .40½- —
tanks. frt. alld. E. of Denver lb. .37 —

ACIDS

Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls lb .50 .55
Acrolein, tech., dms., c.l., works lb .36 —
dms., t.c.l., works ..... lb. 36¾ - —
tanks, works ..... lb. .31 - —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 - —
dms., t.t.l., same basis lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., dlvd lb. .42½- —
dms., t.c.l., t.t.l., dlvd ..... lb. .43½- —
tanks, dlvd. ..... lb. .40 - —
tech., esterification, tanks, frt. alld lb. .38 - —
tech., polymerization, tanks, same basis lb. .38 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., t.c.l., t.t.l., frt. alld ..... lb. .27 - —
tanks, frt. equald ..... lb. .23 - —

Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd ..... lb. .32¼- —
bgs., t.c.l., dlvd. ..... lb. .35 —
Agar, USP, Kobe No. 1, strip, bls. lb. 3.00 - 3.10
powd., 30 mesh., fib. dms lb. 2.40 - 2.60
dl-Alanine, dms., 100-lbs. or more, f.o.b works lb 5.25 - —
dms., 1-99 lbs., same basis lb.10.00 - —
Aldol, 95%, dms., t.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., t.c.l., dlvd lb 1.04 - —

ALCOHOLS

Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs lb 1.50 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.45 - —
Alkali blue prices 1c. higher W of Rockies
Allethrin, 90%, dms., frt. alld lb 28.80 -28.90
Soln., 20%, dms., 200-2,000 lb lots, frt alld lb. 6.50 6.55
2½% dms frt alld. lb. .95 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd ..... lb. .32½- —
dms., t.c.l., dlvd. ..... lb. .34 - —
tanks, dlvd. ..... lb .30 - —
Allyl bromide 55-lb cbys 5,005 lbs or more, works lb. 1.50 - —
55-lb. cbys., 1,045 to 4,- lbs works lb. 1.55 - —
55-lb. cbys., 55 to 990 lbs works lb. 1.60 - —
Allyl chloride, dms., c.l., dlvd lb. 17½- —
dms., t.c.l., dlvd ..... lb. .19 - —
tanks, dlvd ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif, bitter (see Benzaldehyde)
Almond oil, nat. bitter, t.p.a. bots. lb 2.75 3.45
NF, bots. .... lb 3.00 3.30
sweet, USP, cns., dms ..... lb .60 .70
Aloe, Cape, cs. ..... lb. 35 .40
powd'rs ..... lb .60 .65
Curacao, kgs. ..... lb. .75 - —
powd., kgs. ..... lb. .85 - —

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz	ounce
		E.	east	p-	para
		e.p.	end point	Pac.	Pacific
a.p.a.	available phosphoric acid	equald.	equalized	pf.	proof
		exp.	expressed	phos.	phosphate
approx.	approximately	Ext.	external	photo.	photographic
artif.	artificial	F.	fahrenheit	pkgs.	packages
ASTM	American Society for Testing Materials	ferment.	fermentation	powd.	powdered
		f.f.a.	free fatty acid	precip.	precipitated
		f.f.c.	free from chlorine	prod.	producer
Atl.	Atlantic	fib.	fiber	pt.	point
Be.	Baume	f.o.b.	free on board	pulv.	pulverized
bbls.	barrels	f.p.a.	free of prussic acid	purif.	purified
bgs.	bags	frt.	freight	redist.	redistilled
bls.	bales	gal.	gallon	refd.	refined
bots.	bottles	gran.	granular	refy.	refinery
b.p.	boiling point	grd.	ground	reg.	regular
b.p.l.	bone phosphate of lime	i.&a.	iron and aluminum	resub.	resublimed
				ret.	returnable
b.r.	boiling range	i.b.p.	initial boiling point	SD	specially denatured
bxs.	boxes	imp.	imported	s.d.	single distilled
C.	centigrade	incl.	included	S E.	southeast
cbys.	carboys	indust.	industrial	sec.	secondary
CD	completely denatured	kgs.	kegs	secs	seconds
		l-	laevo	s.g.	specific gravity
c.i.f.	cost, insurance, freight	lacq.	lacquer	shipt.	shipment
		lb.	pound	soln.	solution
cks.	casks	l.c.l.	less carlots	s.u.	standard unit
c.l.	carlots	l.t.l.	less truckload	syn.	synthetic
cns.	cans	liq.	liquid	tanks.	railroad tankcars
coml.	commercial	mfrs.	manufacturers	tech.	technical
conc.	concentrated	m-	meta	tert-	tertiary
CP	chemically pure	m.a.p.	mixed aniline point	t.l.	truckloads
cps.	centipoises			t.w.	tankwagons
cryst.	crystalline	min.	minimum	USP	U. S Pharmacopoeia
cs	cases	m.p.	melting point		
ctns.	cartons	N-	nitrogen	vis.	viscosity
cyls.	cylinders	n-	normal	VM&P	varnish makers & painters
d-	dextro	nat	natural		
dbl.	double	neut	neutral	W.	west
denat.	denatured	NF	National Formulary	whse.	warehouse
dest-dist.	destructively—distilled	NNR	New and Nonofficial Remedies	w.w	water-white
dl-	dextro-laevo				
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Aloin, USP, bbls., dms., kgs. lb 3.25 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine)
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium gran. bgs., works 100 lbs 4.30 - —
Lump, dms., works 100 lbs 5.05 - —
Powd dms. works ... 100 lbs 5.20 —
USP, burnt., dms ..... lb .20 .21
hydrous dms ..... lb .07¾ .08
Alum potassium gran. bgs. works 100 lbs 4.55 - —
Lump, dms., works 100 lbs 5.30 - —
Powd. dms., works ..... 100 lbs 5.45 —
USP burnt., dms ..... lb .20 .21
USP hydrous dms ..... lb. .07¾ .08
Alum, potash-chrome, dms lb. .17 —
Alumina, calcined bgs., c.l., works lb. .0535- —
bgs., t.c.l., works ..... lb. .056 .0838
Aluminum acetate, basic soln., 24%, bbls. t.c.l works lb. .14 —
Aluminum chloride comi. anhyd., dms., c.l., works frt equald lb. .16 - —
dms. t.c.l. works lb. 16½- —
cryst. dms. c.l works 100 lbs 21.00 —
dms., t.c.l. works 100 lbs.21.50 —
Soln., 32° cbys., c.l., works lb 0495- —
cbys., t.c.l., works lb .0570- .1095
tanks, works 100 lbs. 3.95 —
NF, gran. dms. works lb. .31 - .32
Aluminum fluoride tech., anhyd., bgs., c.l., works lb. .16¼ —
bgs., t.c.l. works lb. .17¼ .19¼
bulk, c.l. basis 80% lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c per lb higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, t.c.l. works 100 lbs.11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0370- —
bgs., 20,000-40,000 lb. lots, same basis lb. .0395- —
bgs., 2,000-20,000 lb. lots, same basis lb. .0495- —
bulk, c.l., same basis ..... lb. .0330- —
Light, bgs., c.l., t.l., works ..... lb. .09½- —
bgs., t.l., to c.l., works ..... lb. .10½- —
bgs., t.t.l., works ..... lb. .11½- —
Aluminum hydroxide, dried, USP XV fib dms., works lb. .82½- —
fib dms., contract, works lb. 79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works lb. .22 - —
9-9½% Al_2O_3 fib dms., works. lb. .19 - —
fib dms. contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate)
Aluminum metal, 99½% + 30-lb ingots, 10,000-lb lots, frt. alld lb. .2810- —
50-lb pigs 10,000-lb lots, frt alld. lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined)
Aluminum paste lining, extra-fine, dms lb. 71 - —
Standard grade, dms lb. 48½- —
Aluminum powder, lining, extra-fine, dms lb 1.13 - —
Standard grade, dms lb .83 —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c per lb. for 100-lb. dm., 1½c per lb. for 50-lb dm. 3c. per lb. for 10 lb can and 5c to 12c. per lb. for smaller containers Deduct 1c per lb. for single shipment of 400 to 1,499 lbs. 2c for 1,500 to 4,999 lbs., 3c for 5,000 to 29,999 lbs and 4c for 30,000 lbs or more Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs or more
Aluminum resinate, precip., 2.1% Al, dms lb. .45 - —
Aluminum stearate, dibasic, ctns., c.l lb. .39 - —
ctns., t.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., t.c.l. ..... lb. .40 - .44
Tribasic ctns., c.l. ..... lb. .39 - —
ctns., t.c.l. ..... lb. .40 - .44
Aluminum sulfate, comi., grd., bgs. c.l., works, frt. equald ton.41.00 - —
bulk, c.l., same basis ton.40.00 - —
lump, bgs., c.l., same basis ton.44.00 - —
iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.80 - —
bgs., t.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ... oz. 6.50 -10.00
p-Aminoacetanilide, tech., paste, dms., frt. alld lb. 1.57 —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 1.60
Aminoazotoluene base, bbls., 100% basis lb. 1.15 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb 1.72 —
2-Amino-4-chlorophenol, tech., solid dms., frt. alld lb. 2.15 3.83
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb 3.00 —
Aminoethyl ethanolamine, dms., c.l., dlvd lb. .475 - —
dms., t.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., t.c.l., frt. alld. ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald E. of Rockies ton.92.00 - —
refrigeration, tanks, works, frt equald, E. of Rockies ton.94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies ton.95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l. works, frt. equald 100 lbs 8.25 —
bgs. t.c.l., same basis 100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb. lots, works lb. 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton 325 - —
dms., ton lots, ex whse 100 lbs.22.86 - —
dms., smaller lots, ex whse 100 lbs.24.11 - —
Ammonium bicarbonate, dom., dms., c.l., works 100 lbs. 7.50 - —
dms., t.c.l., works ..... 100 lbs. 9.50 - —

Ammonium bichromate dms. works lb 42 .43
Ammonium bifluoride dms. dlvd lb 2145- .2245
Ammonium bromide, NF gran., dms., c.l. t.l. frt equald lb 44 - —
dms. l.c.l. same basis lb 46 - —
Ammonium carbonate USP lump, dms c.l. lb 15½- —
Ammonium chloride, white tech., fine gran. bgs c.l. works 100 lbs 6.00 —
bgs. l.c.l. works 100 lbs 8.00 8.45
USP gran 250 lb drm lb 17¼ —
Ammonium citrate dibasic 250 lb drm f.o.b works lb 77 —
Ammonium dichromate (see Ammonium bichromate).
Ammonium fluoride (see Ammonium bifluoride).
Ammonium gluconate tech. 200-lb drm f.o.b works E lb 45 - —
Ammonium hydroxide (see Ammonia aqueous).
Ammonium iodide NF 25-lb. jar, f.o.b works lb. 4.51 - —
Ammonium lauryl sulfate dms., c.l. frt alld lb 20½ —
dms. t.l. frt alld lb 21½ —
tanks frt alld lb 19½ —
Ammonium lignin sulfonate bgs., c.l. works 100 lbs 3.25 —
bgs. l.c.l. works 100 lbs 3.40 3.65
Ammonium linoleate 80% dms., works lb .50 .55
Ammonium molybdate, CP cryst., 400 lb dms 15,000-lbs works lb 1.22 —
400-lb dms. 4,000-lb contracts works lb 1.23 - —
400-lb dms works lb 1.24 - —
Ammonium nitrate dom. fertilizer grade 33.5% N bgs f.o.b works ton 67.00 - —
Ammonium nitrate, dom. with dolomite 20.5% N, bgs. c.l. Hopewell, Va ton 48.00 - —
Imp. Canadian 20.5% N eastern, bgs c.l. shipt point frt. equald to $3 ton base price ton 70.00 - —
Ammonium oxalate, tech. fine gran 250-lb drm. f.o.b works E lb. 28½- —
Tech. powd 200-lb drm. same basis lb 28½- —
Ammonium pentaborate gran. bgs. c.l. works ton 193.00 —
bgs., ton lots, ex whse 100 lbs. 15.27 —
bgs smaller lots ex stock 100 lbs. 16.52 -18.52
Ammonium pentaborate powder $10 per ton higher in bags.
Ammonium persulfate, tech. dms., 10-ton lots or more works lb .18 —
dms. smaller lots works lb .20 .23
Ammonium phosphate, comi. bgs., c.l. works frt equald lb 09¼ —
bgs. l.c.l. same basis lb .10 —
Dibasic NF V bbls., dms lb. 46 —
Dibasic, tech. bgs. c.l. works, frt alld lb. 09¼ —
Ammonium silicofluoride dms., works lb 12¼ 13¾
Ammonium sulfamate bgs c.l. t.l., works lb .19 —
bgs. l.c.l. works lb 20½ .27
Ammonium sulfate standard granular bulk f.o.b works base price ton 32.00 - —
Ammonium sulfate standard granular, purif. c.l. 100-lb bgs., f.o.b works lb 08¼- —
Large granular bulk c.l. works ton 35 00 —
bgs. c.l. works ton 40 00 —
Tech bulk c.l. t.l. works ton 52 00 —
bgs. c.l. t.l., works ton 56 00 —
bgs l.c.l. t.l. works 100 lbs 3.20 5.20
Ammonium sulfide liq 40-44 %, tanks frt equald 100% basis, ton 160.00 —
Ammonium sulfocyanide, tech (see Ammonium thiocyanate).
Ammonium thiocyanate tech cryst dms c.l. works lb 20 —
dms l.c.l. works lb 22 26
Tech. soln 50% tanks frt. equald. basis ammonium thiocyanate content lb .17¼ —
Ammonium thioglycolate comi., 55-gal dms ton lots, 100% basis lb 1.15 —
d-Amphetamine hydrochloride mononasic dms lb 17.50 -23.50
dl-Amphetamine hydrochloride dibasic dms lb 4.50 6.00
d-Amphetamine phosphate, 6lb dms. 100 lb lots lb 15.00 —
dl-Amphetamine phosphate dms lb 4.20 5.60
d-Amphetamine sulfate 6lb dms lb 15.00 17.00
dl-Amphetamine sulfate 6lb dms. lb 4.20 5.60
Amyl acetate ex fusel oil, tech. dist from 125 to 150° t. dms c.l. frt alld E. of Rockies lb 18½ .19
dms c.l. same basis lb 20 20½
tanks same basis lb 16 16½
Amyl acetate ex pentane reg., dms., c.l. dlvd lb. 19 —
dms. c.l. dlvd lb 21½ —
tanks dlvd lb 16½ —
tech dms c.l. dlvd lb 17 —
dms l.c.l. dlvd lb 18½ —
tanks dlvd lb 14½ —
Amyl acetate syn oxo process, dms., c.l. dlvd lb .19 —
dms c.l. dlvd lb 20½ —
tanks dlvd lb 16½ —
Amyl alcohol ex fusel oil (see Fusel oil refd)
Amyl alcohol ferment. refd. 128° 132°F., dms. l.c.l. dlvd lb. 43½- —
refd. ACS grade dms., l.c.l., dlvd lb. 45½ —
ex pentane mixed amyls, dms., c.l. frt. alld lb. .19 —
dms. l.c.l. frt alld lb 20½- —
tanks frt alld lb 16½- —
Amyl alcohol primary dms., c.l., frt alld lb 20¼- —
dms. l.c.l. frt alld lb 21¾ —
tanks frt alld lb 17¾- —
Sec-synthetic dms c.l. works, frt alld lb 19 —
dms. l.c.l. same basis lb 20½- —
tanks same basis lb 17 —
Tert-synthetic dms. c.l. frt. alld E lb 17 —
dms. l.c.l. frt. alld E lb 18½- —
tanks frt alld E lb 14½- —
Amyl alcohol 1-pentanol (syn normal), dms., c.l. works lb 41½- —
dms. l.c.l. works lb 43 —
tanks works lb 39½- —
2-pentanol, dms. c.l., works lb 65 —
dms l.c.l. works lb 70 —
tanks works lb 60 —
Amyl n-butyrate dms. lb 1.00 1.25
Amyl cinnamic aldehyde dms lb 1.70 2.20
p-tert Amyl phenol dms. c.l. works. lb .28 - —
dms., l.c.l., works lb .29 - —
Amyl salicylate, ens., dms. lb. .71 - —
Amyris oil, dms lb 1.50 - —
Anethol, tech., dms. lb. .80 - .92
USP, ens., dms. lb. 1.05 - —
Angelica root, bls lb. .50 - 1.00
Angelica root oil, bots lb. 120.00 -140.00
Angelica seed oil, bots lb. 120.00 -130.00
Aniline dms. c.l., frt. alld lb. .20 —
dms., l.c.l., frt. alld. lb. .21 - —
tanks, frt alld lb. .18 - —
Aniline oil (see Aniline).
Aniline salt dms., c.l. t.l., 20,000 lbs min., frt alld lb .33 - —
dms. l.c.l., same basis lb .35 - —
Anise oil, USP, dms lb. 1.90 - 3.00
Anise seed, Turkish, bgs. lb. .24 - —
Spanish, bgs. lb. .28 - —
Anisic aldehyde, dms lb 1.50 2.20
o-Anisidine, dms. c.l., frt. alld lb .80 —
dms., l.c.l. same basis lb .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene 90-95%, dms., c.l., t.l. f.o.b. works lb. .42½- —
dms. l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99% 150-lb. dms., dlvd lb 1.15 - —
Anthraquinone, 99.5% bgs., c.l., frt alld lb. .70 - —
bbls., l.c.l., same basis lb. .73 - —
Electrical grade bgs. l.c.l., same basis lb 1.10 —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .32½- —
cs., c.l., mines lb. .33 - —
Antimony oxide, bgs., c.l., frt. alld lb. .28½- .30
bgs., l.c.l., frt. alld. lb. .28 - .31½
Prices of antimony oxide are 2% higher west of the Rockies.
Antimony sulfide, approx 65%, bgs., 10,000-lb. lots, dlvd lb. .23 —
bgs., smaller lots, dlvd lb. .24 .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l. works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb. dm., f.o.b. works, E lb. .69½- —
USP, powd., 250-lb dm same basis lb .74½- —
Apomorphine hydrochloride, USP, bots, 25-oz lots oz. 35.60 —
Apricot kernel oil, USP, dms lb 55 70
Arabic gum amber sorts, 10 bgs lb. .21 .23
USP, powd., bbls lb. .27 .30
Areca nuts, powd., bbls lb. .18 - .20
Arecoline hydrobromide, NF, bots., tins, 100 oz or more oz 4.00 —
l-Arginine free base, dms., 10-kilo lots or more kilo. 90.00 —
l-Arginine glutamate dms., 10-kilo lots or more kilo. 64.80 - —
l-Arginine monohydrochloride, dms., 10-kilo lots or more kilo 60.00 —
Arnica flowers (true Montana), bls. lb .75 —
Aromatic petroleum solvents (see Solvent Naphtha petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb .016 —
bbls., c.l., works lb 0.31 —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b works lb. 48 —
Arsenic, white, powd. bbls., c.l., works lb .04½- —
bbls., l.c.l. works lb 06½ 07¼
Arsenous acid tech (see Arsenic, white).
Arsencus acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls lb 3.70 —
Light shades, bbls. lb 2.85 —
Asafetida gum, ens lb 36 .40
Powd bbls. dms lb 75 .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton 80 00 —
7D, c.l. (30 tons), mines ton 75 00 —
7F, c.l. (30 tons), mines ton 71 00 —
7H, c.l. (30 tons), mines ton 61 00 —
7K, c.l. (30 tons), mines ton 50 00 —
7M, c.l. (30 tons), mines ton 44.00 —
7R, c.l. (30 tons), mines ton 43 00 —
7RF, c.l. (30 tons), mines ton 44.00 —
7T, c.l. (30 tons), mines ton 41 00 —
7TF, c.l. (30 tons), mines ton 44 00 —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher
Ascorbic acid USP dms. 100-kilos kilo. 6.80 —
dms., less than 100-kilos c.l.c. 7.05 - 7.80
Ash, black (see Barium sulfide)
Asphalt, gilsonite black jet, bgs., c.l. mines ton. 43.00 - —
ex-whse. 5 tons or more, N. Y., N. J. ton. 89.50 - —
select, brilliant black, 340°-360°F fusing pt., bgs. c.l., mines ton. 46.00 - —
270°-295°F fusing pt., bgs., c.l., mines ton 43.00 - —
petroleum, cut-back, tanks, tankwagon, refy gal. .09½- —
emulsion, tanks tankwagon refy gal 09½ —
steam-refd. 50-80 penetration, tanks, tankwagon refy ton 21 00 —
85-300 penetration, tanks, tankwagon: refy ton 20.00 —
Aspirin (see Acetylsalicylic Acid)
Atropine, NF tins oz 6.50 7.50
Atropine sulfate USP bots oz 5.25 5.75
Azelaic acid, bgs. c.l. dlvd. lb. .40 —
bgs. ton lots same basis lb .41 —

B

Bacitracin, sterile, over 500,000,000 units, 50,000 units. .90 - —
non-sterile, over 500,000,000 units, 50,000 units. .65 - —
Balm of Gilead buds dried bgs lb 1.25 1.35
Barberry root bark bgs lb 1.00 1.10
Barbital NF 100-lb dms. f.o.b works lb 4.50 —
Barbital sodium NF 100-lb dms lb 4.75 —
Barium carbonate precip., bgs. c.l., works ton 111.50 —
bgs. smaller lots works ton 126.50 —
Barium chlorate dms. works lb 32 41
Barium chloride anhyd. bgs. c.l., works ton 176.00 —
bgs., l.c.l., works ton 196.00 —
NF, cryst., dms., 400-lbs., works lb 23 —
Tech. cryst. bgs c.l. works 100 lbs 4.00 —
bgs. l.c.l. works 100 lbs 6.00 —
Barium chromate bgs. frt equald. lb. .38 —
Barium dioxide (see Barium peroxide)
Barium hydrate, cryst. bgs. c.l. t.l., frt. equald ton 208.00 —
bgs. l.c.l., t.l. frt equald ton 218.00 —
Barium monohydrate, 99% bgs. c.l. frt equald 100 lbs. 11.25 —
bgs. l.c.l., frt equald 100 lbs. 11.75 —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls. c.l., t.l., dlvd lb. .16 - —
bbls., l.c.l., t.l., dlvd. lb. .17 - —
Barium oxide, grd. dms., c.l., t.l., frt equald ton 275.00 - —
dms. l.c.l., t.l., frt equald ton 285.00 - —
Barium peroxide, dms. frt equald. lb .20 —
Barium stearate, ctns. c.l. frt alld. lb .41 —
ctns., l.c.l., same basis lb. .42 .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb dm. lb. .19 - —
Barium sulfide, dms., c.l., works ton 100.00 —
dms., l.c.l., works ton 110 00 —
Barytes, southern off-color, bgs. mines ton 30.00 - —
95-75% bgs., mines ton 30 00 —
white water-grd paper bgs c.l. St. Louis ton 60 00 -60.25
paper bgs. ex wtr. New York ton 84.85 —
Battery acid, chys. c.l., works E. 100 lbs 2.35 —
chys, l.c.l., works, E 100 lbs 2.65 -10.95
Bauxite bulk, mines ton 7 00 -10 00
Bay oil NF Puerto Rican 50-55% cns. lb. 4.00 - —
55-60%, cns. lb. 4.00 - —
NF West Indian, 50-55% cns dms lb. 4.25 - 4.50
Bayberry wax, bgs lb. .65 .70
Beeswax, crude, African, bgs. lb. .52 - .54
Brazilian, bgs. lb. .56 - .57
Central American, bgs. lb. .56 - .57
Chilean, bgs. lb. .57 Nom.
Refd USP bleached white, bricks 100-lb ctns lb. .67 .69
white, slabs, 100-lb. ctns lb. .66 .68
yellow bricks 100-lb ctns lb 59 61
yellow, slabs, 100-lb ctns lb 58 .60
Belladonna leaf, bls. lb. .24 .26
Belladonna root, bls lb. .35 - .38
Bentonite dom 200 mesh, bgs. c.l., mines ton. 14 00 - —
imp Italian, white, high gel., bgs., 5-ton lots ex whse ton. 95.20 - —
bgs., 1-ton lots, ex whse ton. 99 00 - —
imp, Italian, white, low gel. bgs., 5-ton lots ex whse ton. 93.40 - —
bgs., 1-ton lots ex whse ton. 97 16 - —
Benzal chloride, chys., works lb. .44 - —
Benzaldehyde, NF, dms lb. .74 - —
Tech., dms., c.l., t.l. lb. .42 - —
cms., l.c.l. lb. .44 - —
Benzene, pure or nitration, tanks, works:
Baton Rouge, La gal. .34 - —
Bethlehem, Pa gal. .34 - —
Birmingham district gal. .34 - —
Chicago district gal. .34 - —
Cleveland district gal. .34 - —
Geneva, Utah gal. .34 - —
Houston, Tex, gal. .34 .40
Jessup, Pa gal. .34 —
Benzene, pure or nitration, tanks, works:
Lorain, Ohio gal. .34 - —
Middletown, Ohio gal. .34 - —
Mennequa, Colo. gal. .34 - —
Philadelphia district gal. .34 - —
Pittsburgh district gal. .34 - —
Port Arthur, Tex. gal. .34 - —
Benzene, pure or nitration tanks, works:
St. Louis, Mo. District gal. .34 - —
Seattle, Wash gal. .34 - —
Syracuse, N. Y. gal. .34 - —
Terre Haute, Ind gal .34 - —
Youngstown, Ohio gal. .34 - —
Lackawanna, N. Y. gal. .34 - —
Lone Star, Tex gal. .34 - —
Benzene hexachloride 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l. t.l., consignment, dlvd. gamma-unit. .0075 —
bgs., c.l. t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech. low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt alld., 100% basis lb 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. lb 2.55 - —
Lightfast, bbls. dlvd. lb 3.40 - —
Benzocaine, dms. 100-lbs., frt alld. lb 3.25 - —
Benzoic acid, tech. dms., c.l., t.l., frt. alld lb .25 .37
dms., l.t.l., same basis lb. .29 - .41
tanks, same basis lb. .21 - —
USP, bbls., dms., ton lots lb 48 - —
bbls. dms., 1,000-lb lots lb 50 —

BENZOL

Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra cs. lb. .32 —
Benzophenone, dms lb 1.35 1.40
Benzotriazole, tech dms. 1,000-lb lots, works lb. 1.95 - —
Benzotrichloride, chys. 5,000-lb lots or more, frt equald. lb 21 - —
chys. smaller lots, frt equald lb. 23 - —
Benzoyl chloride, chys, dms., c.l., works, frt, equald lb. .22 - —
chys., l.c.l., same basis lb 23 - —
tanktrucks, dlvd Metropolitan area lb .21 —
Benzoyl peroxide, purit. fib. dms., 50 to 1,000-lb lots works lb 98 1.08
Benzyl acetate, t.f.c. cns. dms lb. .54 —
Benzyl alcohol, NF, dms lb. .54 —
Tech dms dlvd lb 47½- .65
Benzyl benzoate USP 40-lb dms. lb. .62 - —
Benzyl chloride, tech., dms., c.l., f.o.b. frt. equald lb. .23 - —
dms., t.c.l., same basis lb .24 - —
tanktrucks, dlvd., Metropolitan area lb. .21 —
Benzyl cinnamate, cns lb. 3.80 - 4.00
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb 1.25 —
12-49 dms. same basis lb 1.35 - —
1-11 dms. same basis lb 1.90 —
Benzyl formate, cns. lb 1.70 1.85
Benzyl isoeugenol, cns lb 8.20 8.30
Benzyl propionate, bots lb. 1.30 1.35
Benzyl salicylate, bots lb. 1.50 1.85
Benzylidine acetone, bots lb. 1.65 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate cns lb 56.50 - —
Berberine hydrochloride, bots lb 56.50 - —
Bergamot oil nat. NF Italian, cns. lb. 11.00 -12.00
Betagammapicoline (see b-g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene)
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphthylamine)
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine)
Biot. (see Benzene hexachloride tech.).
Biotin, cryst. bots gram. 10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil crude cns lb 1.50 1.90
Rectified, cns lb 1.75 2.00
Bismuth chloride, jars lb 5.11 —
Bismuth hydroxide, dms lb 4.60 4.65
Bismuth metal, bxs. ton lots lb 2.25 - —
Bismuth nitrate, cryst., 200-lb. dm., lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.92 - —
Bismuth subcarbonate, USP, 25-lb. dm., f.o.b., works lb. 3.70 - —
Bismuth subgallate NF 200-lb dm. f.o.b works lb 3.98 - —
Bismuth subiodide fib dms lb 5.37 —
Bismuth subnitrate NF 200-lb dm. f.o.b., works lb. 3.10 - —
Bismuth subsalicylate USP 100-lb dm., f.o.b works lb 4.15 - —
Bismuth trioxide 100-lb dms. f.o.b works lb 4.40 - —
Bismuth-ammonium citrate USP, powd. jars lb 4.22 - —
Bisphenol-A bgs. c.l. t.l. single shipt. 70,000-lbs or more, frt. lb. .30½- —
bgs. c.l. t.l. less than 70,000 lbs. same basis lb. .31 - —
bgs., l.c.l., same basis lb. .32½- —
Blackberry root bark, bls lb .50 .55

BLACK PIGMENTS

Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black

Blanc fixe direct process, bgs. c.l. works ton 180 00 —
bgs., l.c.l., works ton 170.00 - —
bgs., l.c.l., New York whse ton 210 00 —
Blood, dried 16-16½% ammonia, bgs., New York unit-ton 5.50 —
Bloodroot, bls lb 85 .90

BLUE PIGMENTS

Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil, Brazilian, dms lb 2.05 - —
Peruvian, dms. lb 1.65 —
BON acid maroons, pure, bbls lb 1.75 —
Resinated, bbls lb 1.50 —
Bone black, dms. c.l., frt. alld lb .1750- .2225
l.c.l. works lb .1950- .2425
Pacific coast bone black prices 3¼¢ per lb higher
Bonemeal, steamed, works, E ton. 100.00 - —
Bone phosphate defluorinated of lime (see Defluorinated phosphate).
Bone phosphate, precip (see Calcium phosphate, tribasic).
Borax, tech, anhyd., 99½%, bgs., c.l. works ton 92 00 —
bgs. ton lots, ex whse New York or Chicago 100 lbs. 7.67 - —
bgs. smaller lots same basis 100 lbs. 8.91 -10.91
bulk c.l. works ton 83 00 —
Borax, tech., gran., decahydrate, 99½% bgs. c.l. works ton 50.00 —
bgs. ton lots, ex whse New York or Chicago 100 lbs. 5.31 - —
bgs. smaller lots same basis 100 lbs. 6.56 - 8.56
bulk c.l. works ton 43 50 —
pentahydrate 99½%, bgs., c.l. works ton. 64.50 —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 6.12 - —
bgs. smaller lots same basis 100 lbs. 7.37 - 9.37
bulk, c.l. works ton 58 00 —
USP powd. bgs c.l. works ton 54.00 —
bgs. ton lots, ex whse New York or Chicago 100 lbs. 6.57 - —
bgs. smaller lots same basis 100 lbs. 7.82 - 9.82
Bordeaux powder tribasic bgs c.l., dlvd lb. .24 - —
bgs. l.c.l., same basis lb .26 - —
Boric acid tech. anhyd 99.9% bgs., c.l works ton. 335 00 - —
bgs. ton lots ex whse, New York or Chicago 100 lbs. 21.27 - —
bgs. smaller lots same basis 100 lbs. 22.52 -24.52
cryst. 99.9% bgs. c.l. works ton. 163 50 —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 11.67 - —
bgs., smaller lots, same basis 100 lbs. 12.92 -14.92
Boric acid, tech. cryst., 99.9% dms. c.l., works ton 188.50 —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 13.17 - —
dms., smaller lots, same basis 100 lbs. 14.42 - —
gran., 99.9%, bgs., c.l., works, ton. 112.00 - —
bgs. ton lots, ex whse New York or Chicago 100 lbs. 8.78 - —
bgs. smaller lots, same basis 100 lbs. 10.03 -12.03
dms. c.l. works ton 137 00 —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 10.29 - —
dms. smaller lots same basis 100 lbs. 11.54 - —
bulk, c.l. works ton. 106.00 - —
powd., bgs., ton lots, ex whse, New York or Chicago 100 lbs. 9.20 - —
bgs., smaller lots same basis 100 lbs. 10.45 -12.45
dms., ton lots, ex whse., New York or Chicago 100 lbs. 10.71 - —
dms., smaller lots, same basis 100 lbs. 11.96 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb 2.75 - —
Boron trichloride, CP 1,800-lb. cyls., works lb 1.25 - —
100-lb cyls. works lb 1.70 - —
Boron trifluoride gas, cyls., t.l., works lb. 70 - —
cyls., l.t.l., works lb. 70 - —
Brimstone (see Sulfur).
Broenner's acid, bbls lb 1.53 —
Bromine, purif., ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms., t.c.l., same basis lb. .31 .34
tanks, same basis lb. 21½- —
Bromochloromethane dms. c.l., frt. equald lb 48 —
dms. t.c.l., same basis lb 50 —
tanks, same basis lb 47 —
Bromoform, pharmaceutical grade, 5-gal. cby., frt. equald lb. 1.98 - —

Bromstyrol, bots.	lb.	5.25	6.35
Brucine, cns	oz.	Nominal.	
Brucine sulfate, NF, cns.	oz.	1.45	1.75
Buchu leaves, bbls.	lb.	.60	.65

BROWN PIGMENTS

Brown pigment quotations are listed individually. For example, prices on iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd. cyls., c.l., refy	lb.	.21	—
cyls., l.c.l., refy.	lb.	.22	—
tanks, dlvd.	lb.	.12¾	—
Butene-1, tanks, works	lb.	.0625	—
Butene-2, tanks, works	lb.	.0570	—
n-Butyl acetate, ferment, dms., c.l., frt. alld	lb.	.17	—
dms., t.c.l., same basis	lb.	.18½	—
tanks, same basis	lb.	.14½	—
Syn., dms., c.l., dlvd. E	lb.	.17	—
dms., l.c.l., same basis	lb.	.18½	—
tanks, same basis	lb.	.14½	—
sec-Butyl acetate, syn. dms., c.l., dlvd. E	lb.	.14¾	—
dms., t.c.l., same basis	lb.	.16¼	—
tanks, same basis	lb.	.12¼	—
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E	lb.	.37½	—
dms., t.t.l., same basis	lb.	.38½	—
tanks, same basis	lb.	.35	—
n-Butyl alcohol, ferment, dms., c.l., frt. alld	lb.	.18	—
dms., t.c.l. frt. alld	lb.	.19½	—
tanks, frt. alld.	lb.	.15½	—
Sec-synthetic, dms., c.l., dlvd	lb.	.15	—
dms., t.c.l., dlvd.	lb.	.16½	—
tanks, dlvd	lb.	.12½	—
Tert-synthetic, dms., c.l., frt. alld., dlvd. E	lb.	.16	—
dms., t.c.l., same basis	lb.	.17½	—
tanks, same basis	lb.	.13½	—
Butyl aldehyde (see Butyraldehyde).			
Butyl chloride, dms., c.l., works	lb.	.37½	—
dms., t.c.l., works	lb.	.38¼	—
n-Butyl ether dms., c.l., works	lb.	.35¼	—
dms., t.c.l., works	lb.	.36	—
tanks, works	lb.	.33¼	—
Butyl lactate, dms., c.l., frt. alld. E. Rockies	lb.	.42½	—
dms., t.c.l., same basis	lb.	.43½	—
tanks, same basis	lb.	.40	—
Butyl laurate, dms., works	lb.	.37½	—
Butyl methacrylate, dms., c.l., t.l., works	lb.	.55	—
dms., t.c.l., works	lb.	.55½	—
Butyl oleate, refd., dms., t.c.l., works	lb.	.32	—
Butyl phenylacetate, dms.	lb.	4.50	4.60
Butyl phthalate (see Dibutyl phthalate).			
Butyl stearate, dms., c.l., frt. alld. E. of Rockies	lb.	.27¼	—
dms., t.c.l., same basis	lb.	.28¼	—
Butylamine (see Mono-, Di- and Tributylamine).			
tert-Butylamine, dms., c.l., t.l., f.o.b. works	lb.	.47	—
dms., t.c.l., same basis	lb.	.47½	—
tc., t.l., same basis	lb.	.45	—
Butylated hydroxyanisole, food grade, dms., dlvd.	lb.	4.75	—
6-tert-Butyl-m cresol (see Mono-tert-butyl-m-cresol)			
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p cresol).			
1,3 Butylene glycol, dms. c.l., t.l., dlvd	lb.	.20½	—
dms., t.c.l., t.t.l., f.o.b. works	lb.	.22	—
tanks dlvd	lb.	.18	—
p-tert-Butylphenol, bgs., c.l., frt. alld.	lb.	.25½	—
bgs., t.c.l., same basis	lb.	.26½	—
tanks, same basis	lb.	.23½	—
Butyraldenyde, dms., c.l., dlvd	lb.	.22	—
dms., t.c.l., dlvd.	lb.	.23½	—
tanks dlvd	lb.	.19½	—
Butyric acid, 99%, dms., c.l., frt. equald	lb.	.34	—
dms., t.c.l., same basis	lb.	.34½	—
tanks, same basis	lb.	.32½	—
Butyric ether (see Ethyl butyrate).			
Bu.vrolactone dms., c.l., t.l., works.	lb.	.40	—
dms., t.c.l., same basis	lb.	.43	—
n-Butyronitrile, dms., c.l., dlvd	lb.	.56½	—
dms., t.c.l., dlvd.	lb.	.57½	—
tanks, dlvd.	lb.	.54	—

C

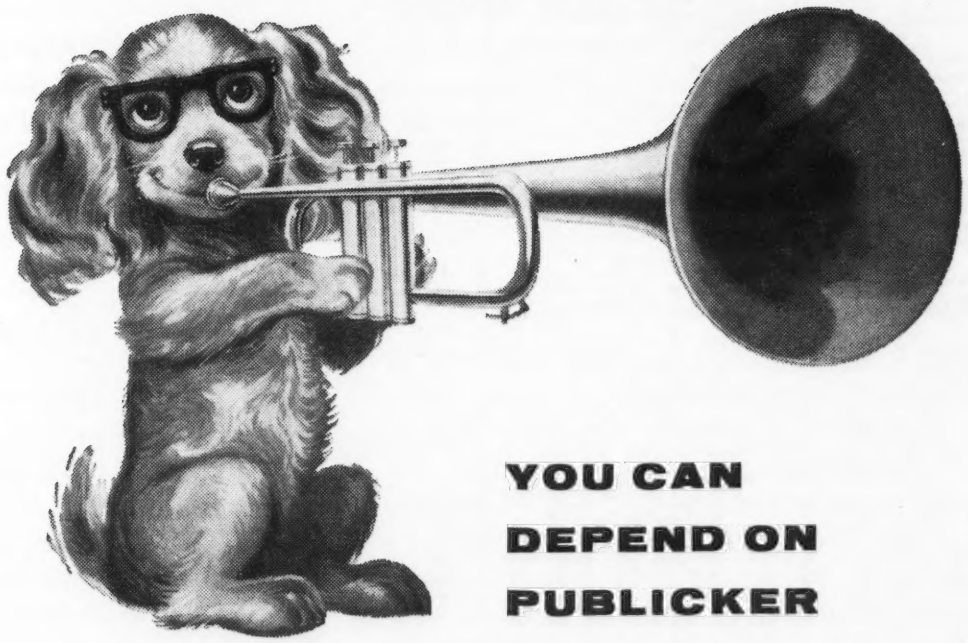
Cacao butter (see Cocoa butter).			
Cadmium CP red dark shade, bbls., frt. alld. E. of Rockies	lb.	5.55	—
Light shade, bbls., same basis	lb.	4.65	—
Medium shade, bbls., same basis.	lb.	5.30	—
Cadmium CP red, medium, light shade, bbls., same basis.	lb.	4.90	—
Orange-red shade, bbls., same basis	lb.	4.30	—
Yellow, all shades, bbls., frt. alld. E. of Rockies	lb.	2.93	—
Cadmium chloride, 400-lb. dms., f.o.b. shipping point	lb.	1.56½	—
Cadmium iodide, 25-lb. fib dms.	lb.	6.75	7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd.	lb.	1.60	—
Cadmium nitrate, purif. cryst., 400-lb. dms., less than 5,000 lbs., f.o.b. shipping point.	lb.	.94	—
400-lb. dms., 5,000 lbs. or more, same basis	lb.	.90	—
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies	lb.	1.70	—
Cadmium-mercury lithopone red, dark shade, bbls., same basis	lb.	2.00	—
Red, light shade, bbls., same basis.	lb.	1.77	—
Red, medium shade, bbls., same basis	lb.	1.92	—
Red, medium light shade, bbls., same basis	lb.	1.85	—
Red, maroon shade, bbls., same basis	lb.	2.08	—
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies	lb.	2.81	—
Orange, bbls., same basis	lb.	1.63	—
Cadmium-selenide lithopone red, orange-red shade bbls., same basis	lb.	1.77	—
Red, dark shade, bbls., same basis.	lb.	2.61	—
Red, light shade, bbls., same basis.	lb.	1.63	—
Red, medium shade, bbls., same basis	lb.	2.28	—
Red, medium-light shade bbls. same basis	lb.	2.05	—
Cadmium-selenide, lithopone, yellow, all shades bbls. frt alld E. of Rockies	lb.	1.24	—
Caffeine NF citrated, dms 100-lb lots or more	lb.	2.70	—
USP, syn., cryst., hydrous, dms., 100-lb. lots or more, frt. alld.	lb.	2.25	—
hydrous, powd., 150-lb. dms., frt. alld	lb.	2.25	—
USP, syn., cryst., anhyd., powd., dms., 100-lb. lots or more, frt. alld.	lb.	2.40	—

Cajuput oil, native, cns.	lb.	1.75	2.00
Redist., USP, cns	lb.	1.90	2.10
Calamine, USP, dms.	lb.	.34	—
Calamus oil, bots.	lb.	12.00	20.00
Calciferol, cryst., 10-kilo or more lots, works	gram	.54	—
1-10 kilo lots	gram	.55	—
Calciferol, in edible oil (see Viosterol).			
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted	lb	3.10	—
Calcium bromide, NF, jars, 100 lbs. or more	lb.	1.10	—
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd	ton.	149.00	—
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l. works	ton.	10.50	—
Chalk, whiting, 325 mesh, bgs., c.l., works	ton.	32.00	34.00
water-grd., ½ to 10 microns, bgs., c.l., works	ton.	30.00	—
10 to 20 microns, bgs., c.l., works	ton.	17.00	18.00
Precip., dense, bgs., c.l., works,	ton.	30.00	38.50
bgs., t.c.l., works	ton.	45.00	53.50
medium, bgs. c.l., works	ton.	38.00	—
bgs., t.c.l., works	ton.	48.00	53.00
Calcium carbonate, surface treated, bgs., c.l., works	ton.	42.00	44.00
bgs., t.c.l., works	ton.	57.00	59.00
ultrafine, bgs., c.l., works	ton.	117.50	167.50
bgs., t.c.l., works	ton.	137.50	187.50
Calcium chloride, conc., flake or pellet 94-97%, paper bgs., c.l., works, frt. equald.	ton.	39.30	—
Flake, 77-80%, paper bgs., c.l., works, frt. equald	ton.	32.00	—
Liquor, 40%, tanks, frt. equald.	ton.	12.50	—

Calcium chloride, powd., 77% min., paper bgs., c.l., works, frt. equald.	ton.	37.00	—
Purif., gran., dms	lb.	.27	—
Calcium chloride, solid, 73-75%, dms., c.l., frt. equald	ton.	30.50	—
dms., t.c.l., works, frt. equald.	ton.	36.00	73.00
USP, gran., dms.	lb.	.32	—
Calcium chromate, bgs., dlvd	lb.	.37	—
Calcium cyclamate, 100-lb. dms	lb.	1.93	—
Calcium gluconate, USP, AA grade, 100-lb. dm., ton	lb.	.73½	—
USP, powd., 100-lb. dm., ton	lb.	.66½	—
Calcium hydride, lump, dms., works.	lb.	2.20	3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd E. of Rockies	cs.	27.50	—
100-lb. dms., same basis	dm.	39.50	—
Calcium hypophosphite, dms., 1,000-lb. lots	lb.	1.28	—
Calcium iodide, 25-lb. jars, works.	lb.	4.27	—
Calcium lactate, NF, dms., f.o.b. works	lb.	.43	.46
Calcium mandelate, USP, 150-lb. dm., works	lb.	3.25	—
Calcium naphthenate, liq., 4% Ca., dms., frt equald	lb.	.30	—
Calcium pantothenate, USP, jars, 1 kilo or more	kilo.	35.00	—
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).			
Calcium phenosulfonate, dms.	lb.	1.24	1.25

Calcium phosphate, dibasic, USP, dihydrate, bgs., c.l., frt. equald 100 lbs.		8.25	—
Dibasic, feed grade, 18½% P, ogs., c.l., t.l., Bonnie, Fla., frt. equald	ton.	81.00	—
bgs., c.l., t.l., f.o.b. Texas City works	ton.	75.50	—
bgs., t.c.l.,	ton	96.00	—
Feed grade, 21% P., bgs., c.l., t.l., frt. equald	ton.	97.65	—
bgs., t.c.l. frt equald	ton	107.65	—
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.			
Calcium phosphate, monobasic, bgs., 10,000-lb lots, frt. equald. 100 lbs.		7.45	—
bgs., smaller lots, same basis. 100 lbs.		7.95	—
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs.		9.25	—
bgs., t.c.l., frt. equald 100 lbs.		10.00	—
Calcium propionate, any quantity, dms., dlvd. E. of Rockies.	lb.	.37	—
Prices W. of Rockies 3c. per lb. more.			
Calcium phytate, bgs., 50 lbs. or more, f.o.b. warehouse N. Y	lb.	.39	—
Calcium resinate, precip., dms., frt. alld., works	lb.	.45	—

you're doggone tootin'



YOU CAN DEPEND ON PUBLICKER

For Uniform Quality—Steady Supply—Prompt Delivery

★ *Ethyl Aldohol* ★ *Butyl Chloride* ★ *Acetic Acid*
★ *Ethyl Acetate* ★ *Isoamyl Alcohol* ★ *Amyl Acetate*
★ *Butyl Alcohol* ★ *Acetone* ★ *Refined Fusel Oil*
★ *Butyl Acetate* ★ *Acetaldehyde* ★ *Proprietary Solvent*
★ *THERMICE brand of CO_2 (gas, liquid, solid)*

Publicker INDUSTRIES INC.
1429 WALNUT STREET, PHILADELPHIA 2, PA.

NEW YORK • NEW ENGLAND
PUBLICKER ALCOHOL & CHEMICAL SALES CORP.
PHILADELPHIA—LOCUST 4-1400 • NEW YORK—OXFORD 5-4160
BOSTON—HOMESTEAD 9-0022
MIDWESTERN DISTRIBUTORS, PUBLICKER CHEMICAL CORP.
CHICAGO—RANDOLPH 6-1557-8-9 • ST. LOUIS—PROSPECT 6-0858
NEW ORLEANS—FILMORE 7-1486

Calcium silicate hydrated, bgs., c.l., works lb. .06 - —
bgs., l.c.l., works lb. .06½- —
Calcium silicate paint grade (see Wollastonite)
Calcium stearate, ctns., c.l. lb. .39 - —
ctns., l.c.l. lb. .40 - .44
Calomel NF mild, powd., dms., 100-lbs., f.o.b. works lb 4.32 - —
NF mild, precip., dms., 100-lbs., f.o.b. works lb 5.67 - —
Camphene 46° m.p., dms incl., c.l., works lb. .15 —
dms. incl., l.c.l. same basis lb. .16½- —
tanks, same basis lb. .12½- —
Camphene chlorinated 67-69% (see Toxaphene)
Camphor, monobromated NF, dms., kgs lb. 3.63 3.70
Camphor, syn. tech. 1 bbl or more, lb. .45 - —
USP, gran., powd., bbls., 1,000-lb. lots lb. .53 - —
bbls smaller lots lb. .54 - —
tablets, ctns., 1,000-lb. lots, lb. .80 - —
ctns., 500-lb. lots lb. .81 - —
ctns., smaller lots lb. .82 - —
Camphor oil, sassafrassy, dms. lb. .35 - .55
White, dms. lb. .26 - .50
Cananga oil, native, cns. lb 5.00 6.50
Rectified, cns lb 7.25 -10.00
Candelilla wax, crude, bgs lb. .57 - .58
Refd., pure, bgs lb. .62 - .63
Powdered Candelilla wax 20 to 100 mesh 8c higher.
Cantharides, Chinese, cs. lb 1.00 - —
powd., bgs. lb 1.15 - —
Russian, bgs. lb 2.00 2.15
powd., bgs. lb 2.15 2.30
Capric acid, dms lb. .27¼- .29¾
tanks lb. .24¾- —
Caprolactam monomer, bgs., c.l., t.l., f.o.b. works lb. .52 - —
bgs., l.c.l., t.l.l., same basis lb. .57 - —
tanks, same basis lb. .49 - —
Capryl alcohol 85% dms., c.l., t.l., works lb. .19 - —
dms., t.l.l. same basis lb. .19½- —
tanks, frt. equald. lb. .16½- —
Sec., 92-99% dms. c.l., f.o.b. works lb. .22 - —
dms. l.c.l., f.o.b. works lb. .23 - —
tanks, f.o.b. works lb. .19½- —
Caprylic acid, dms lb. .27¼- .29¾
tanks lb. .24¾- —
Capsicum (see Pepper red)
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin NF from dom. pepper, dms lb 4.00 - —
NF, from African pepper, dms. lb 4.50 - —
Caraway oil, NF, dms lb 3.75 - —
Caraway seed Danish, bgs. lb. .16 - —
Dutch, bgs. lb. .19 - —
Carbanzole 97%, bbls. ton lots, works lb 1.05 - —
Carbon black, channel, rubber beads, bulk, c.l., works lb. .08 - —
bgs., c.l., works lb. .08½- —
bgs., l.c.l., works lb. .16¼- —
furnace, fast extruding, bgs., c.l., works lb. .08¾- —
ctns, l.c.l., whse lb. .13½- —
high abrasion, bulk, c.l., works, lb. .07¾- —
bgs., c.l., works lb. .07¾- —
bgs., l.c.l., dlvd. or whse lb. .14½- —
high modulus, bgs., c.l., works lb. .08¼- —
ctns., l.c.l., whse lb. .13 - —
semi-reinforcing, bgs., c.l., works, lb. .05¾- —
bgs., ctns., l.c.l., whse lb. .12½- —
pigment, high color beads, ctns., c.l., works lb. .78 - —
ctns., l.c.l., dlvd. or whse lb. .87 - —
medium color, uncompressed, bgs., c.l., works lb. .14 - —
bgs., l.c.l., dlvd. or whse lb. .22½- —
Carbon dioxide (must wholesale, bulk, 30,000-2,999,999 lbs., dlvd Metropolitan areas, E ton 60.00 -115.00
bulk, 3,000,000 lbs or more, dlvd Metropolitan areas, E ton 55.00 - —
Solid, bulk, wholesale works ton 85.00 - —
Carbon disulfide, 55-gal dms. c.l., works, frt equald to competitive points lb. .071 —
55-gal. dms. l.c.l., same basis lb. .086 .091
5-gal dms., 30 dms to c.l., same basis lb. .131 —
5-gal. dms., less than 30 dms., same basis lb. .161 - —
tanks, f.o.b. works lb. .0450- —
Carbon tetrachloride CP, consumers dms. c.l., frt alld. lb. .12¾- —
dms. l.c.l. frt alld. lb. .15¼- —
Tech. consumers dms. c.l., t.l., frt alld lb. .11¾- —
dms. l.c.l. t.l.l. frt alld lb. .14¼- —
tanks, frt alld lb. .10¾- .11¼
Carboxymethyl cellulose (see CMC).
Carbromal NF dms. 100-lb lots, works lb 4.00 4.25
dms. smaller lots, works lb 4.10 4.75
Cardamom oil, NF, bots lb. 41.00 -43.00
Cardamom seed, bleached "A" lb 3.45 —
Bleached "B" lb 3.15 - —
Decorticated Alleppey, cs. lb. 2.70 - —
Guatemala, cs. lb. 2.10 - —
Green, Alleppey, bgs lb. 2.10 - —
Ceylon, bgs. lb. 2.10 - —
Carmine No 40, NF, bulk, 100-lb lots or more dlvd lb 16.80 —
bulk, smaller lots, dlvd lb. 16.90 -17.30
Carnauba wax, chalky, bgs., ton lots, lb. .65 Nom.
North Country, No 2, crude, bgs., ton lots lb. .73 Nom.
refd., pure, ton lots lb. .76 - .77
Carnauba wax, North Country, No. 3, Ceara, crude, ton lots, lb. .59 - .61
North Country, No 3, Parnahyba, crude, ton lots lb. .62 - .64
No. 3, refd., pure, bgs., ton lots, lb. .67 - .68
No. 1, Ceara, yellow, bgs., ton lots, lb. .82 - .83
Parnahyba, yellow, bgs., ton lots, lb. .85 - .86
Powdered carnauba wax, 20 to 100 mesh 8c over lb higher
Carotene tech 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram. 20½ —
in carrot oil, 5,000,000 to 8,000,000 A units per lb. dms., works million units. .12 - —
USP, microcrystalline in oil, 400,000 A units per gram, dms, dlvd million units. 144 - —
b-Carotene, in vegetable oil, sct., solid suspension 400,000 A units per gram cns kilo 57.60 - —
b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns kilo. 72.00 - —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram cns kilo. 240.00 - —

Carvol, bots. lb 5.00 5.49
Cascara sagrada bark, bulk lb. .32 - —
Casein, dom., edible, acid precip., 30 mesh, bgs., 10,000-lb. lots or more, works lb. .56 - —
Casein, dom., edible, acid, precip., 80 mesh, bgs., 10,000-lb. lots or more, works lb. .64 - —
Imp., inedible acid-precip., gra., Argentine bgs. c.l. ex-dock Eastern seaports lb. .15¾- .16½
Australian, bgs. c.l. same basis lb. .19 - .19¼
New Zealand, same basis lb. .24 - .25
Cashewnut shell, liquid, treated, dms., c.l., Newark, N.J lb. .24 - —
dms. ton lots, same basis lb. .25 - —
t.w., same basis lb. .22½- —
Cassella acid, dms, frt. alld., 100% basis lb 1.44 1.75
Cassia oil, redist., USP cns lb 7.50 9.00
Cassia, Padang, "A," bls. lb. .31 - —
"B," bls. lb. .30 - —
"C," bls. lb. .29 - —
Korintje "A," bls. lb. .31 - —
"B," bls. lb. .29 - —
"C," bls. lb. .27 - —
Castor oil, dom., blown, dms., c.l. lb. .2552-
dms. l.c.l. lb. .2650- —
dehydrated, bodied, dms., c.l. lb. .2700- —
dms. l.c.l. lb. .2850- —
tanks lb. .2500- —
dehydrated, unbodied, dms., c.l. lb. .2500- —
dms., l.c.l. lb. .2660- —
tanks lb. .2360- —
hydrogenated, bgs., c.l. lb. .2475- —
bgs., ton lots lb. .2875- —
bgs., l.c.l., dlvd lb. .3075- —
Castor oil, dom., raw, No. 1, dms., c.l lb. .2200- —
dms., l.c.l lb. .2300- —
tanks lb. .2000- —
No. 3, tech., dms., c.l. lb. .2125- —
dms. c.l., lb. .2225- —
tanks lb. .1925- —
Castor oil, dom., refd., deod., dms., c.l. lb. .2650- —
dms., l.c.l. lb. .2750- —
tanks lb. .2450- —
USP, dms., c.l. lb. .2350- —
dms., l.c.l lb. .2450- —
tanks lb. .2150- —
Imported, No. 1, Braz., tanks lb. .17¼- —
No. 3, tanks, same basis lb. .16¾- —
Sulfonated, 50%, dms., works lb. .15 - .15½
75%, dms works lb. .19 - .19½
Castor oil acids, dehydrated, dms. lb. .41¼- .43¼
Split, dms. lb. .33¾- .34¾
Castor pomace, bgs., c.l., works ton 35.00 - —
Castoreum nat., cns. lb 5.25 - —
Syn., cns lb 9.00 - —
Catechol, CP, cryst., fib., dms., works lb 2.17½ —
Resun, dms, works lb 4.29½ —
Catnip leaves, Southern bls lb Nominal
Caustic potash (see Potash caustic)
Caustic soda (see Soda caustic)
Cedarleaf oil USP XIII cns., dms. lb. 4.00 - 5.00
Cedarwood oil cns., dms. lb 1.00 - —
Celery seed oil lb. 11.50 - —
Celery seed, French, bgs lb. .36 - —
Cellulose acetate, flake, powd., bgs., l.l. dlvd E lb. .36 - .51
Cellulose acetate butyrate, powd., 17% butyryl content, bgs., dlvd E lb. .545 .555
27% butyryl content, bgs, dlvd, E lb .595 .605
38% butyryl content, bgs., dlvd, E lb. .545 - .555
Cellulose acetate-butyrate, 38% butyryl content, half-second, bgs., dlvd, E lb. .545 - .555
50% butyryl content bgs dlvd, E lb .585 .595
Cellulose gum, methyl (see Methyl Cellulose)
Cellulose gum, pure, high vis., bgs., 23,000-lb lots or more works, frt alld lb. .57 - —
bgs., smaller lots, same basis lb .59 - —
standard, low or medium vis., bgs., c.l., t.l., frt. alld, E lb. .57 - —
standard, low or medium vis., bgs., ton, frt. alld, E lb. .59 - —
(Cellulose gum prices 1c. per lb. higher in west.)
Cerium hydrate (4% CeO, fib dms., 100-lb lots or more lb 1.40 - —
77% CeO, fib dms, 100-lb lots or more lb 1.74 - —
Cerium oxalate (see Rare earth oxalate)
Cerium oxide, optical grade, bgs., 50-lb lots or more, dlvd. lb 1.85 1.90
bgs., smaller lots, dlvd. lb 2.15 —
Cetyl alcohol NF fib cns., c.l., t.l., dlvd E lb 41½- —
fib cns., l.c.l., same basis lb 43½- —
tanks same basis lb 39 - —
Extra, cns, c.l., t.l., dlvd E lb 48½- —
fib cns, l.c.l., same basis lb 50½- —
tanks, same basis lb 46 - —
Chalk (see Calcium carbonate)
Chamomile flowers, Hungarian, lb. 1.00 - 1.25
Roman, cs. lb. 1.75 - 2.00
Chamomile oil, blue Hungarian bots lb 350.00 —
Charcoal, activated NF, fib dms. c.l., works lb. .34 - —
fib, dms., 5-ton lots, works lb. .35 - .35½
fib dms, smaller lots, works lb. .36 - .59
Charcoal, black (see Charcoal, activated)
Charcoal, bone (see Bone black).
Charcoal, hardwood, lump, bulk c.l., f.o.b. plant ton 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton 80.00 - —
5-lb paper bgs., c.l., same basis ton 106.00 - —
20-lb paper bgs, c.l., f.o.b. plant, ton 90.00 - —
40-lb paper bgs c.l. same basis ton 86.00 —
Chenopodium oil, NF, cns lb 4.75 5.00
Chicago acid, paste bbls, frt alld. lb 3.21 - —
Chinawood oil (see Tung oil)
Chloral, tech., 94% min, dms., c.l., works lb .23 - —
dms., l.c.l., works lb .24 - —
tanks, multiple units, 5 cars, dms., l.c.l. works lb. .21 - —
Chloral hydrate, USP jars, 1,000-lb lots lb 1.00 - —
jars, 500-lb lots lb 1.03 - —
jars, 100-lb lots or less lb 1.05 - —
Chlordan, agricultural dms., c.l., frt alld lb 65 - —
dms, l.c.l. 5,000-10,000-lb. lots, frt alld lb 66 —
clarified, dms., c.l., frt. alld lb. .69 - —
dms, l.c.l. 5,000-10,000-lb lots, frt. alld lb 70 —

Chlorinated paraffin, 40%, dms., c.l., frt. alld lb. .18 - —
dms., l.c.l., 10 dms. or more, same basis lb. .16 - —
70%, dms., c.l., same basis lb. .18½- —
dms., l.c.l., 10 dms. or more, same basis lb. .19½- —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works lb. .60 - —
ctns., l.c.l. works lb. .61 - —
125 cps. ctns., c.l., works lb. .70 - —
300 cps. ctns., c.l., works lb. .80 - —
Chlorine, liq., cyls., c.l., works, frt. equald lb. .11 - —
cyls., l.c.l., Metropolitan area, same basis lb. .12½- .13¾
tanks, single units, works, frt. equald 100 lbs. 3.25 - —
tanks, multiple units, 5 cars, works, frt. equald, same basis 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car, same basis 100 lbs. 6.25 - 7.25
Chloroacetic acid, mono, flake, 99% purif., dms., c.l lb. .23½- .25½
dms. l.c.l lb. .24½- —
tech., flake, 96-97%, dms., c.l., frt. equald lb. .19 - —
dms., l.c.l. frt equald lb. .20 - —
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld lb. 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb. 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms. frt. alld lb. .66 - —
m-Chloroaniline dms., c.l., frt. alld. lb. .75 - —
dms., l.c.l., same basis lb. .77 - —
tanks, same basis lb. .73 - —
o-Chloroaniline, dms., c.l., frt. alld. lb. .52 - —
dms., l.c.l., same basis lb. .54 - —
tanks, same basis lb. .50 - —
p-Chloroaniline, dms., c.l., frt. alld. E. lb. .77 - —
dms., l.c.l., same basis lb. .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb. 1.05 - —
dms., t.l.l., same basis lb. 1.20 - —
p-Chlorobenzaldehyde, dms., l.c.l., works lb. 1.95 - —
o-Chlorobenzoic acid, fib dms., t.l., works lb. 1.10 - —
fib dms., smaller lots works lb. 1.25 - —
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works, lb. 2.25 - —
fib. dms., less than 2,000-lbs., same basis lb. 2.30 - —
Chloroform, tech., dms. c.l., dlvd. E lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17 - —
USP, dms., c.l., dlvd lb. .27 - —
dms., l.c.l., dlvd. lb. .30 - —
tanks, minimum 4,000 gals. dlvd, lb. .25 - —
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .90 - —
Powd., dlvd E., 100% basis lb. 1.00 - —
4-Chloro-2-nitroaniline, powd. dlvd. E lb. .86 - —
4-Chloro-2-nitrophenol, tech., paste, dms. frt alld lb. .75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt alld lb. .99 - —
o-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .25 - —
p-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms. l.c.l. same basis lb. .38 - —
p-Chlorophenol, dms., c.l., frt equald lb. .37 - —
dms. l.c.l. same basis lb. .38 - —
Chloropicrin, comi., cyls., 180 lbs., frt alld lb 1.07 - —
cyls., 100 lbs., same basis lb 1.08 - —
cyls., 50 lbs., same basis lb 1.14 - —
Chlorosulfonic acid, dms., c.l., frt. equald lb. .0465- —
dms., l.c.l. frt equald lb. .0515- —
tanks, frt equald lb .0415- —
Chlorosulfonic acid, in stainless steel dms ½c per lb higher
o-Chlorotoluene, tech., dms., t.l., works lb. .37 - —
dms., l.c.l., t.l.l., same basis lb. .38 - —
Choline bitartrate, 100-lb. dms., frt. equald lb. 1.25 - —
Choline chloride, 100-lb dms., frt. equald lb. 1.25 - —
Choline dihydrogen citrate, 100-lb. dms., frt. equald lb. 1.25 - —
Chrome green CP dark, light, medium blue content, 1-15%, bbls. dlvd E of Rockies, lb. .43 - —
blue content, 16-30%, bbls., same basis lb. .44 - —
Chrome green, medium blue content, 41-45%, bbls., same basis lb. .44 - —
blue content, 45-49%, bbls., same basis lb. .45 - —
reduced color 25%, bbls., same basis lb. .20 - —
Chrome green prices 1c. higher W of Rockies
Chrome orange CP bbls., dlvd E of Rockies lb. .35 - —
Chrome orange prices 1c higher W of Rockies
Chrome yellow CP bbls., dlvd E. of Rockies lb. .35 - —
Chrome yellow price 1c. higher W of Rockies
Chromic acid, 99¾%, dms., c.l., works, frt. equald lb. .29½- —
dms., l.c.l., dlvd, N Y Metropolitan area lb. .30 .31
Chromic acid, NF (see Chromium trioxide)
Chromium acetate, soln., 7½%, dms., 500-2,000-lb lots, works, lb. .10 - —
Chromium fluoride bbls, works lb. .51 - .52
Chromium oxide, hydrated, bbls., fib dms, c.l., frt. alld. lb. 1.20 - —
Pure, bgs., c.l., frt alld lb. .44½- —
bgs, l.c.l., same basis lb. .45¼- —
Chromium trioxide NF bots lb. 1.15 - —
Cinchona bark, NF red, broken, bgs lb .25 - —
NF yellow broken bgs lb. .35 - .40
Cinnamic acid, refd., bots lb. 2.50 3.50
Cinnamic alcohol, bots lb 1.50 1.60
Cinnamic aldehyde dms lb .80 1.00
Cinnamon, Ceylon, No. 2, bgs lb. .53 - —
Ceylon, No. "0000" bgs. lb 73 - —
Cinnamon bark oil, bots. lb. 74.40 - —
Cinnamon leaf oil, crude, dms lb 1.60 2.00
USP (Cassia), cns., dms lb 8.50 -13.50
Citral, CP, bots lb. 4.50 - 5.00
Extra, bots lb. 3.60 5.00
Syn., dms. lb. 7.25 7.40
Citric acid USP, anhyd., fine gran., bgs., dms., c.l lb. .29½- .30
bgs. dms. 10,000-lb. lots, 1 shipt lb. .30 .30½
bgs., dms. smaller lots lb. .30½- .31
Citric acid, USP, hydrous, fine gran., bgs., dms., c.l lb. .27½- .28
bgs. dms. 10,000-lb. lots, 1 shipt lb. .28 .28½
bgs. dms. smaller lots lb. .29 29½
Powdered citric acid ½c. per lb. higher.

Citronella oil, Ceylon, dms. lb. 1.00 - —
Java-type, dms. lb. 1.00 - 1.20
Citronellal, bots., dms. lb. 1.40 - 1.60
Citronellol, bots., dms. lb. 1.90 - 2.50
Synthetic, dms. lb. 1.70 - —
Civet, artif., bots. lb. 13.75 -15.00
Nat. bots. oz. 8.50 -15.00
Clay, ball, dom., airfloated, bgs., c.l., Tenn ton. 17.50 -21.50
crushed shed moisture, bulk, c.l., Tenn ton. 8.00 -11.25
imp., airfloated, bgs., c.l., Atl. port net-ton. 43.00 -47.00
lump, bulk, Atl. port net-ton. 31.50 -37.50
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia, bgs., c.l., works. ton. 11.00 -17.00
Georgia, bgs., l.c.l., works. ton. 13.50 -22.50
Imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me. long-ton. 23.00 -35.00
white, powd., bgs. c.l. ex dock. net-ton. 50.00 —
bgs., l.c.l. ex whse net-ton. 60.00 -70.00
Cleaners naphtha, petroleum, 105°F Flash, tankcars New Jersey and New York gal. 18 —
Group 3 gal. .12375- —
Houston, Texas gal. .145 —
140°F Flash, tankcars, New Jersey or New York gal. .205 - —
Group 3 gal. .154 - —
Houston Texas gal. .17 - —
Cleve's acid tech., mixed, solid, dms., frt alld lb. 1.05 - —
1.6 tech. solid, dms frt. alld lb 1.77 - —
1.7 tech., dms. frt alld lb 2.20 - —
Clove bud oil, USP, dms. lb. 2.65 - —
Cloves, Madagascar, bgs lb. .35 - —
Zanzibar, bgs. lb. .37 - —
Clove leaf oil, crude, dms lb. 1.10 - —
CMC, crude, 96.4% low or medium vis bgs., 23,000 lbs., dlvd, E., 100% basis lb. .40 - —
96.4% low, or medium vis., bgs., less than 23,000 lbs., dlvd. E., 100% basis lb. .42 - .46
65% low or medium vis., bgs., c.l., dlvd. E., 100% basis lb. .40 - —
l.c.l., dlvd E., 100% basis lb. .42 - 1.00
purif, high vis (see Cellulose gum)
CMC prices W. of the Rockies are 1c. per lb. higher and are on a dlvd. basis.
Coaltar, crude, resale for soln., tanks, works gal. .17 - —
Refd., resale, indust., dms., c.l., ex whse gal. .35 - —
dms., l.c.l., ex whse gal. .38 - —
tanks works gal. .20½- —
Coaltar pitch, aluminum, bulk, Works ton. 42.00 - —
Carbon, bulk works ton. 42.00 - —
Indust., bulk, works ton. 44.00 - —
Core bulk works ton. 40.50 - —
Fiber, bulk works ton 48.00 - —
Roofing, 140-155°F., Federal Specification RP-381 Type 1 tanks, works ton. 41.00 - —
Cobalt acetate 23.6% Co. dms., dlvd lb 1.04 - —
Cobalt blue, genuine, 250 lb bbls., dlvd E of Rockies lb. 4.90 - —
Cobalt blue prices 1c higher W. of Rockies
Cobalt blue imitation (see Ultramarine blue)
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.45 —
Cobalt chloride, 24.2% Co., dms., dlvd lb. .93 - —
Cobalt hydrate, 60-61% Co., dms., dlvd lb. 1.97 - —
Cobalt linoleate, fused 8½% Co., dms lb. .71½- —
Liq., 6% Co. dms lb. .57½- —
Cobalt metal, 99% dms., f.o.b. carrier lb 1.50 - —
Cobalt naphthenate liq. 6% Co., dms., dlvd lb. .48¾- —
Cobalt nitrate 20.1% Co. bbls. dlvd. lb. .75 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd E of Mississippi R. lb. 1.15 - —
70-71% Co kgs. same basis lb 1.12 - —
Cobalt oxide prices W of Mississippi R. 3c. per pound higher
Cobalt phosphate powd., 32.1% Co., dms., dlvd lb 1.35 - —
Cobalt resinate, fused, 3% Co. dms lb. .38½- —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb. .64 - —
Monohydrated, 33% Co., dms., dlvd lb 1.09 - —
Cobalt tallate 6% Co., dms. dlvd lb. .44 - —
Cocaine, USP cns., 100-oz. lots, f.o.b works oz. 17.50 - —
Cocaine hydrochloride, cns. 100-oz. lots f.o.b works oz. 13.75 - —
Cocillana bark bls lb .18 .20
Cocoa butter, bgs lb. .53 - .58
Coconut oil, crude, tanks, New York lb. .13½- —
tanks, Pac coast lb. .12 - —
Refd., deodorized, dms. lb. .19 - .20
Coconut oil acids, dms., dms lb. .21½- .24
tanks lb. .19 - —
double dist. (stripped), dms. lb. .22½- .25
tanks lb. .20 - —
Cod oil, dms., spot lb. .08¼- .08½
Codeine, NF cns. 100-oz lots oz. 13.25 - —
Codeine hydrochloride cns., 100-oz. lots oz. 11.75 - —
Codeine phosphate, USP, cns., 100-oz lots oz. 10.25 - —
Codeine sulfate USP cns. 100-oz. lots oz. 10.75 - —
Codliver oil, USP dms gal 1.40 1.70
Cohosh root, black bls lb .20 .25
Blue bls lb .20 .25
Colchicine, USP, bots. 27.50 -29.00
Colchicum root bls lb .35 .45
Colchicum seed, bgs. lb. .85 .90
Collodion, USP, dms. lb. .32½- —
USP flexible dms lb .34 - —
Colocynth pulp bls lb .25 - —
Columbo root bls lb .16 .18
Condurango bark bls lb .18 .20
Congo copal gum, No 1, bgs lb .26 .27
No 2, bgs lb .23 .25
No 3, bgs lb .21 .24
Copaiba balsam, cns., dms. lb. .80 - .90
Copaiba oil cns lb 1.35 2.00
Copper acetate bbls, c.l., works lb. .53 - —
bbls., l.c.l. works lb. .54 - —
Copper carbonate, 55%, dark dense, works lb. 34.35 - —
bgs., l.c.l., works lb. 35.85 - —
Copper chloride, cupric, anhyd., dms., works lb. .43½- .44
cryst., dihydrate, dms., works lb. .29¾ .30¼
cryst., dried, dms., works lb. .32¾ .33½
cuprous, dms., works lb. .3855- .4155
Copper cyanide, tech., dms. 20,000-lb lots or more lb. .609 —
dms. 1,000-lb lots or more lb. 619 —
dms. smaller lots lb 639 .65
Copper gluconate, dms lb 3.20 —
Copper hydrate dry dms. c.l., frt. E of Miss lb. .52½- —
dms., l.c.l., same basis lb. .53 - —
Copper metal, electrolytic, dlvd. Valley, basis lb. .29 - —

NOW READILY AVAILABLE IN QUANTITY

CELLASE™ 1000

Wallerstein's Cellulose-Degrading Enzyme

Cellase 1000 is a potent purified enzyme preparation of uniform cellulolytic activity now available to manufacturers of pharmaceuticals and food supplements. Standardized at 1000 WCU (**W**allerstein **C**ellulase **U**nits), Cellase 1000 offers the possibility of control of a long neglected phase of human nutrition: **the digestion of vegetable matter high in fiber and roughage.**

A Fungal Enzyme of a New Type

Cellase 1000 is derived from a specially grown strain of *Aspergillus niger.* Chemically it is a highly purified enzyme capable of depolymerizing cellulosic polysaccharides of high molecular weight into fragments of low molecular weight. The exact constitution and nutritional utility of the hydrolysis products depend on many factors, including the type and state of the cellulose initially acted upon.

Some Interesting Uses of Cellase 1000

Aside from the management of geriatric disorders in a progressively aging population, Cellase 1000 can find uses in the correction of dyspepsia, flatulence, certain nutritional insufficiencies, and other GI disturbances of highly contemporary importance. Because Cellase 1000 facilitates the digestion of cabbage, cucumbers, and other "difficult" vegetables, its use for people who have trouble with these foods will allow greater cellulose bulk intake and a concomitant decrease in calorific starches. The implications for the regulation of obesity are plain.

A Pharmaceutically Elegant Enzyme

The whitish color and minimal odor of Cellase 1000 insure its palatability and acceptability in your products, while its high potency and low bulk allow you to formulate smaller and more attractive capsules and tablets than have heretofore been possible. Cellase 1000 is eminently suitable for combination with Mylase® 100 and Prolase® 300, Wallerstein's purified amylase and protease. Further, Cellase 1000 is compatible with most active ingredients, adjuvants and vehicles normally employed in digestive aids and nutritional supplements.

Get in touch with Gerry Gray for samples and your copy of Data Sheet 630 on Cellase 1000.

WALLERSTEIN COMPANY *Division of Baxter Laboratories, Inc.*
Staten Island 3, New York Gibraltar 2-6400

Wallerstein Manufactures Enzymes, Antibiotics and Chemicals for Industry

Copper naphthenate, liq., 8% Cu, dms frt alld lb. .26½- —
Copper nitrate, tech, crvst, dms., works lb. .30¾ .32¾
Copper oleate, solid 9% Cu, dms., works lb. 45 - —
Copper oxide, black, bbls., 100-5,000-lb lots, works lb. .46 - —
red, 97%, USP Type I, bbls., 100-5,000-lb. lots lb. .46½- —
90% USN Type II, obls. 100-5,000-lb lots or more, works lb. .45½- —
Copper quinolinolate 18% Cu, dms., ton lots lb 4.25 —
10% active quinolinolate dms lb 1.14 1.15
Copper resinate, precip, dms frt alld lb. .47 - —
Copper sulfate, CP, gran., dms., works lb. .1885- —
Cryst., 99%, bgs., c.l., works, 100 lbs.12.00 - —
bgs., l.c.l., works 100 lbs.12.50 -15.00
Copper sulfate, monohydrated, 96%, dms., c.l., works 100 lbs.22.65 - —
dms., l.c.l., works 100 lbs.23.40 - —
Tribasic, distributors, bgs., c.l., works 100 lbs.29.10 - —
bgs., l.c.l., works 100 lbs.30.60 - —
Copper undecylenate dms lb 2.75 —
Copra, Atl., Gulf ports, c.i.f. ton.170.00 - —
Pac. ports, c.i.f ton.165.00 - —
Coriander oil, USP, bots. lb. 6.50 7.25
Coriander seed, Moroccan, bgs lb. .18 - —
Rumanian, bgs. lb. .14 - —
Yugoslavian bgs lb .08½ —
Corn oil, crude, tanks, works lb. .17½- .17¾
Foots, (soapstock acid 95%) tanks, New York lb. .06½- .06⅝
Refd., salad, dms. tanks lb. .2323- .2350
lb. .2123- —
Corn oil acids, dist., dms lb. .15½- .18
tanks lb. .13 - —
Corn sugar, tanners chipped, paper bgs. c.l. 60,000 lbs min. 100 lbs 7.30 - —
paper bgs. l.c.l 100 lbs 7.45 - —
Corn syrup, 43° Be., tanks, dlvd. N.Y 100 lbs. 6.30 - —
non-ret dms. c.l., same basis, 100 lbs. 7.23 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP bots., kilo or more gram .95 1.75
Costus oil bots oz 6.00 —
Cottonseed meal, 41% bgs. Mem phis ton.60.00 - —
Cottonseed oil, crude, tanks, South, East lb. .14⅜ Nom.
tanks, Valley lb. .14⅛ Nom.
tanks, Texas, Waco lb. .14 - —
Foots (soapstock, acid 95%), New York, tanks lb. .04½- —
Refd., salad, dms. lb. .20 - .20¼
tanks, salad, dms. lb. .18 - —
Cottonseed oil acids, dist., dms lb. .15½- .18
tanks lb. .13 - —
Coumarin, NF, cryst., dms lb. 3.10 - 3.30
Cramp bark, NF, bls. lb. .90 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate NF bots. chys., lb 3.05 3.26
Creosote, coaltar, crude, tanks, works, frt adjusted gal. .24 - —
Crude, soln 80%, tanks, works, gal. .226 - —
Refd., dms., c.l., works gal. 50 - —
dms., l.c.l., same basis gal 62 - —
tanks, same basis gal 38 - —
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c per gallon for coaltar
Creosote, beechwood, chys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 1.77
Hardwood, NF chys. dms. same basis lb. 1.42 1.47
Pinewood dms. incl. c.l., works, lb. .0611- —
dms. incl., l.c.l., works lb. .0684- —
dms. incl., l.c.l. ex whse, New York lb. .0795- —
tanks, works lb. .0511- —
Creosote oil (see Creosote coaltar).
Cresol, tech, 50% below 204°C., dry above 207°C., wide distillation range non-ret. dms., c.l., frt. alld lb. .16½- —
non-ret dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .145 —
USP, 50% 204°C., dry above 207°C., wide distillation range non-ret dms., c.l., same basis lb. .18 - —
non-ret dms. l.c.l. same basis, lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98% dms. c.l., works, lb. .60 - —
dms., l.c.l., works lb. .61 - —
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
m-p-Cresol, 2.97% 2°C. dms., c.l., frt. equald lb. .22 - —
dms., l.c.l. same basis lb 23 —
tanks same basis lb 20 —
o-Cresol 30.5°C. m.p and over, ret., dms c.l. frt equald lb. .17 - —
ret. dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 —
30°-30.49°C. m.p. dms. c.l., frt. equald lb. .16½ —
ret. dms., l.c.l., same basis lb. .17½ —
tanks same basis lb. .14½ —
29°-29.9°C. m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25°-28°C m.p. dms. c.l., frt. equald lb. .15 - —
ret. dms., l.c.l., same basis lb. .16 - —
tanks same basis lb. .13 - —
p-Cresol, 98% dms. c.l., dlvd lb .52 - —
dms., l.c.l., dlvd lb .53 - —
tanks, dlvd lb 49 - —
2,3-Cresotic acid dms. ton lots, works lb. 70 —
dms. smaller lots, works lb. 72 —
p-Cresyl methyl ether cns lb 1.80 2.05
Cresylic acid, coaltar, dom., metapara content above 25%, resins and tricresyl phosphate grades dms. c.l., t.l. frt equald gal 1.35 - —
dms., l.c.l., same basis gal 1.40 - —
tanks, same basis gal 1.15 - —
metapara content 25% or less, dms. c.l. t.l. same basis gal. 1.20 - —
Cresylic acid, coaltar, dom., metapara content 25% or less, dms. l.c.l. same basis gal 1.25 - —
tanks frt equald gal 1.00 - —
Imp., metapara content 25% or less, f.o.b works, frt. equald to competitive points, 50 dms or more. gal. 1.03½ —
less than 50 dms., same basis gal 1.05 1.15
tanks, same basis gal 1.00 —

Crotonaldehyde, 91-93%, dms., l.c.l, works lb. .25 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., dlvd lb. .36 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs.13.00 - —
bgs., l.c.l. works 100 lbs.14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works lb. .21 - —
bgs. t.t.l., works lb .22 - —
Cubeb berries, NF, bgs. lb. 1.30 - —
Powd., cs. lb. 1.45 - —
Cubeb oil, cns lb. 8.75 - 9.00
Cumene, dms. c.l., works lb. .12 - —
dms., l.c.l., works lb. .14 - —
tanks, works lb. .11 - —
Cumin seed, Iranian, bgs lb. .19 - —
Moroccan, bgs. lb. .36 - —
Turkish, bgs. lb. .8 - —
Cumin seed oil, bots, cns lb.15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract, ton 57.00 - —
Cyanamide, fertilizer, pulv., 21% N, bgs., works, unit-ton, 2.85 - —
Indust. grade, bgs., c.l., works, ton.75.00 - —
bgs., l.c.l., works ton.96.00 - —
Indust grade 6-16 mesh, dms. c.l., works ton.120.00 - —
dms. l.c.l., works ton.140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd. E of Rockies gal 1.02 - —
dms. l.c.l. same basis gal 1.10 - —
dms., c.l., dlvd W of Rockies gal. .77 - —
dms., l.c.l., same basis gal. .85 - —
tanks, works gal. .55 - —
98% tech. 40-dm. lots or more, f.o.b works gal. .56 - —
5-39 dms. same basis gal. .60 - —
tanks, same basis gal. .36 - —
Cyclohexanol, tech., dms., c.l., works, frt, alld. E lb. .30½- —
dms., l.c.l. works, same basis, lb. .31½- —
tanks, works, same basis lb. .28 - —
Cyclohexanone, tech., dms., c.l., works lb. .33½- —
dms., l.c.l. works lb. .34½- —
tanks, works lb. .31 - —
Cyclohexylamine, tech., dms., c.l., works lb. .49 - —
dms., l.c.l., works lb. .50 - —
tanks, works lb. 47 - —
Cypress oil, bots. lb. 5.30 - —

D

2,4-D tech, bgs, dms., c.l., works, frt equald lb. .40 —
bgs. dms. l.c.l., same basis lb. .45 .49
2,4-D butyl ester dms. c.l., works, lb. .43 —
dms., l.c.l., same basis lb. .48 .52
tanks, same basis lb. .42 —
2,4-D isopropyl ester, dms., c.l., works lb. .43 —
dms., l.c.l., works lb. .48 .52
tanks, works lb. .42 —
Dammar gum Batavia, A E, cs lb No stocks.
East India Batu, bold, bgs lb. .15½ .18
nubs and chips, bgs lb. .10 .11
black, bold, bgs lb. .16 - .18
nubs and chips, bgs lb. .13 - .14½
unscraped bgs. lb. .13 .14½
pale, chips, bgs lb. .16 - .18
pale nubs, bgs lb. 20¾ .24
Siam cs lb .31½ .34
Singapore, No. 1, bgs. lb. .38 - .44
No. 2, bgs. lb. .29 .32
dust, bgs. lb. .18 .20
No. 3, bgs. lb. No stocks.
Dandelion root, bls lb. .35 .40
DDD, tech., flake, grd., fib. dms., c.l., works lb. .45 .47
fib dms., l.c.l., works lb. .46 .48
DDT, flake or lump, bgs., c.l., dlvd lb. .23 - —
bgs., smaller lots, same basis, lb. .25 - —
fib dms., c.l., same basis lb. .24 - —
fib dms., smaller lots, same basis lb. .26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate)
l-Decanol, tech., dms., c.l., dlvd E, lb. .43½- —
dms., l.c.l., dlvd E. lb. .45½- —
tanks, dlvd E lb. .41 —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .23½- —
dms., l.c.l., dlvd. lb. .25 —
tanks, dlvd. lb 21 —
Perfume grade, bots. lb 1.00 2.00
Decyl alcohol normal (see l-Decanol)
Deertongue leaves, bls. lb. .50 .60
Defluorinated phosphate, feed grade 14% P, paper bgs., c.l., t.l., Tupelo, Miss ton.52.00 - —
18% P, paper bgs., c.l., Plant City, Fla ton.61.25 - —
paper bags, c.l., works, Miss ton.66.00 - —
19% P, paper bgs., c.l., t.l. works, Houston, Tex ton.66.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices
Degras, common (15-17% free fatty acid), 400-lb dms lb. .12 - 14
Neutral tover 2% free fatty acid), 400-lb dms lb. 13 - —
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd E of Rockies gal. .69½- —
dms., l.c.l., same basis gal. 74½ .80½
tanks, dlvd, same basis gal .53½ —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd E of Rockies gal. .72 —
dms., l.c.l., same basis gal. 77 .83
tanks, same basis gal. .56 —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd E of Rockies gal. .70½- —
dms., l.c.l., same basis gal. 75½ .81½
tanks, same basis gal. .54½- —
SD2B, dms., c.l., dlvd. E of Rockies gal. .69 —
dms., l.c.l., same basis gal. 74 .80
tanks, same basis gal. .53 —
SD3A, dms., c.l., dlvd. E of Rockies gal. .68 —
dms., l.c.l., same basis gal. 73 .79
tanks, same basis gal. .52 —
SD23A, dms., c.l., dlvd. E of Rockies gal. 70½- —
dms., l.c.l., same basis gal. 75½ .81½
tanks, same basis gal. .54½- —
SD23H, dms., c.l., dlvd. E of Rockies gal. .71 - —
dms., l.c.l., same basis gal. 76 - .83
tanks, same basis gal. .55 —
Denatured alcohol, SD29, dms., c.l., dlvd. E. of Rockies gal. .69½- —
dms., l.c.l., same basis gal. .74½- .80½
tanks, same basis gal. .53½- —
SD30, dms., c.l., dlvd. E. of Rockies, gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
SD-40, dms., dlvd. E. of Rockies, gal. .70½- —
dms., l.c.l., same basis gal. .75½- .81½
tanks, same basis gal. .54½- —
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.
West coast dlvd prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms lb..15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms lb. 6.60 - —
Dextrin, corn, gum paper bgs., c.l., 100 lbs. 9.39 - —
paper bgs., l.c.l. 100 lbs. 9.54 - —
canary dark, paper bgs., c.l. 100 lbs. 9.23 - —
paper bgs., l.c.l 100 lbs. 9.38 - —
indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.13 - —
paper bgs., l.c.l 100 lbs. 9.28 - —
white paper bgs., c.l. 100 lbs. 8.97 - —
paper bgs., l.c.l 100 lbs. 9.12 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs higher
Dextrose, anhyd., comi., bgs., c.l. 100 lbs. 8.65 - —
bgs. l.c.l 100 lbs. 8.80 - —
Anhyd. special, aluminum foil lined fib. dms., 200-lb. dms 100 lbs.14.70 - —
100-lb. dms. 100 lbs.15.20 - —
Hydrated, comi., bgs., c.l., ex whse 100 lbs. 7.45 - —
bgs. c.l., ex whse 100 lbs. 7.60 - —
USP dms. lb. .19¾- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd lb. .13 - —
Tech. dms., c.l., dlvd. lb. .15 - —
dms. l.c.l., dlvd. lb. .16½- —
tanks, dlvd lb. .12½- —
Diacetyl, flavor grade, bots lb. 3.30 4.30
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Diallylamine, dms., c.l., dlvd. lb. .98½- —
dms., l.c.l., dlvd. lb. 1.00 - —
tanks, dlvd lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., l.c.l., same basis lb. .94 - —
tanks, same basis lb. .91 - —
Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd. lb. .65 - —
l.c.l., dms., same basis lb. .68 - —
Food grade, c.l. t.l. dms., dlvd. lb. .65 - —
dms. l.c.l., same basis lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. lb. .57 - —
dms., l.c.l., same basis lb. .60 - —
tanks, same basis lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., t.l., dlvd. E lb. .33 - —
tanks, dlvd E lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., t.l., dlvd E lb. .33 - —
tanks, dlvd. E lb. .29 - —
Dibutyl phthalate, dms., c.l., dlvd. E lb. .31½- —
dms., l.c.l., same basis lb. .33 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .29 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .29 - —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works lb. .68½- —
tanks, works lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld lb. .65½- —
Dibutylamine, dms., c.l., dlvd lb. .55½- —
dms., l.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .28½- —
dms., l.c.l., dlvd. lb. .30 - —
tanks, dlvd. lb. .26 - —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt alld lb. .73 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾- —
dms., l.c.l., same basis lb. .13¾- —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., t.o.b., works, frt. alld. E lb. .12 - —
dms. 2,000 lbs or more, same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., l.c.l., or t.l.l., works lb. .34 - —
tanks, works lb .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½- —
dms., l.c.l., t.l., same basis lb. .17 - —
tanks same basis lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l. frt. equald lb. .65 - —
dms., l.c.l., same basis lb. 75 - —
Dichloropentanes dist., dms., c.l., works lb. .05 - —
dms., l.c.l., works lb. .06 - —
tanks works lb .03 - —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine dms. c.l., works. lb. .54 - —
dms., l.c.l., works lb. .55 - —
tanks works lb. .52 - —
Dicyclohexyl phthalate, gran., fib. dms c.l. works frt alld. lb. .49½- —
fib. dms., l.c.l., same basis lb. .51½- —
Dicyclopentadiene dms. c.l., t.o.b. works lb. .14½- —
dms., l.c.l., same basis lb. .14¾- —
tanks same basis lb. .12 - —
Didecyl phthalate dms. c.l., works. lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tankcars, tanktrucks, 2,000 gals. lb. .26 - —
tanktrucks 1,000-1,999 gals, same basis lb 26½- —
Dieldrin, dms., c.l. dlvd. lb. 1.85 - —
dms., l.c.l. dlvd. lb. 1.90 - —

Diethanolamine, dms., c.l., dlvd. E, lb. .27 - —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- —
dms., l.t.l., frt. alld. lb. .28½- —
tanks, frt. alld. lb. .26½- —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate, dms., c.l., t.o.b. works lb. .47½- —
dms., l.c.l., same basis lb. .48½- —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd. lb. .69½- —
dms., l.c.l., dlvd. lb. .71 - —
tanks, dlvd lb. .67 - —
Diethyl oxalate, dms., c.l., f.o.b. works lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Diethyl phthalate, dms., c.l., dlvd. lb. .29¾- —
dms., l.c.l., dlvd. lb. .31¼- —
tanktrucks, 1,000-1,999 gals, same basis lb. .27¾- —
tankcars, tanktrucks, 2,000-lb lots, same basis lb. .27¼- —
Diethyl sulfate, dms, c.l., frt. alld. E, lb. .21 - —
dms., l.c.l., frt. alld. E lb. .22½- —
tanks, frt. alld. E lb. .18½- —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 - —
dms., l.c.l., same basis lb. .59 - —
Diethyl toluamide, 90-95% meta isomer dms. c.l. t.l., works, lb 2.30 - —
5-44 dm. lots, works lb 2.35 - —
1-4 dm lots, works lb 2.40 - —
N,N-Diethyl-m-toluidine, tech., tq., tanks, frt. alld lb. .83 - —
Diethylamine dms., c.l., dlvd E lb. .52 - —
dms., l.c.l., same basis lb. .53½- —
tanks, same basis lb. .49½- —
N,N-Diethylaniline dms., c.l., frt. alld lb. .57 - —
dms., l.c.l., same basis lb .58 - —
tanks, same basis lb. .55 - —
Diethylbenzene, 380 lb dms., c.l., t.l., frt alld., Zone 1 lb. .17½- —
f.o.b. Zone 2 lb. .18½- —
Diethylbenzene, 380-lb. dms., l.c.l., c.l., f.o.b. Zone 1 lb. .19½- —
f.o.b. warehouse points, Zone 2 lb. .20½- —
Diethylbenzene tankcars, Zone 1 lb. .15 —
Zone 2 lb .16 —
Zone 1 is East of the Rockies. Zone 2, West of the Rockies
Di-2-ethylhexyl adipate (see Di-octyl adipate).
Di-2-ethylhexyl phthalate (see Di-octyl phthalate).
Diethylene glycol dms. c.l., dlvd E, lb. .17¾- —
dms., l.c.l., same basis lb. .19¼- —
tanks same basis lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works lb. .55 - —
dms., l.c.l., works lb. .55¾- —
Diethylene glycol monobutyl ether, c.l., dms., frt. alld. E lb. .30¾- —
dms., l.c.l., frt. alld. E lb. .32¼- —
tanks, frt. alld. E lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, works lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .22½- —
dms., l.c.l., dlvd. E lb. .24 - —
tanks dlvd E lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works, lb. .27¼- —
dms., l.c.l., works lb. .28 - —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd E lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd, E lb. .44 - —
dms., l.c.l., dlvd E. lb. .45½- —
tanks, dlvd E. lb. .41½- —
Diethylstilbesterol, USP, bots. 10-kilo lots kilo 100.00 147.50
bots, 1-kilo lot kilo 110.00 152.50
Digitalis leaves, USP, dom. dms lb 1.25 —
Digitoxin, USP, bots gram 3.75 4.20
Diglycol laurate, dms., ton lots lb. .32½- —
Diglycol stearate, dms., t.l lb. .26 - —
Diglycolic acid, bgs., c.l., t.l., works, lb. .15½- —
bgs., l.c.l. works lb. .16 - —
Dihexyl sebacate, dms., c.l., works, lb. .66 - —
dms., l.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 1.25
Dihydrostreptomycin sulfate, bulk, gram .03 - —
1,2-Dihydroxy anthraquinone, dms., works lb 3.45 - —
2,2-Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms lb. 2.55 - —
Tech., dms., 20,000 lbs or more lb 1.11 - —
dms, 1,050 lbs to 20,000 lbs. lb 1.13 - —
dms, 150 lbs to 1,050 lbs lb 1.15 - —
Di-isobutyl ketone dms., c.l., dlvd. lb. .17 - —
dms., l.c.l dlvd. lb. .18½- —
tanks dlvd lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd E. lb. .31½- —
dms. l.c.l., same basis lb. .32½- —
tanks same basis lb. .29 - —
Di-isobutylene dms. c.l., dlvd. E lb. .10 - —
dms., l.c.l., dlvd E lb. .11½- —
tanks dlvd E lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., works lb. .29 - —
dms., l.c.l., same basis lb. .30½- —
tanktrucks, 1,000-1,999 gals., works lb. .27 - —
tankcars, tanktrucks, 2,000 gals., works lb. .26½- —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 - —
dms., l.c.l., works lb. .61¼- —
tanks, works lb. .60 - —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., dlvd. E of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb 48 - —
Dillweed oil, dom., bots., dms lb 5.25 - —
Dimethyl anthranilate, cns. lb 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal dms., dlvd lb 3.50 - —
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd E lb. .78 - —
dms., l.c.l., dlvd. E lb. .79½- —
tanks, dlvd E lb. .75½- —
Dimethyl ethanolamine, 70%, dms., c.l., dlvd., 100% basis, contained amines lb. .78 - —
dms., l.c.l., dlvd., 100% basis lb. .79½- —
tanks, dlvd., 100% basis lb. 75½- —
Dimethyl hydroquinone, dms. lb 1.90 2.20
Dimethyl phthalate, dms., c.l., works lb. .29¾- —
dms., l.c.l., works lb. .31¼- —
tanktrucks, 1,000-1,999 gals., same basis lb. .27¾- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .27¼- —

W. R. GRACE & CO. reports on 1960

Earnings for 1960 of $16.2 million were slightly below 1959. However, chemical profits were up 11%, the third consecutive year of higher chemical sales and earnings. Chemicals accounted for over 75% of pre-tax operating earnings. This improvement reflects the new products resulting from research as well as the increased capacity and efficiency generated by the $100 million expansion in chemical facilities over the past five years.

In the growing packaging field, Cryovac bags and films as well as a wide range of sealing compounds give Grace an important world-wide position. In plastics, the capacity of our polyethylene plant is being increased and sales continue to rise sharply. Cosden Petroleum Corporation, 53%-owned subsidiary, has also expanded in chemicals. The demand for agricultural chemicals has also risen.

Earnings increased from our diversified Latin American business. However, difficult conditions continued in the shipping industry and Grace Line operated at a loss for the first time since 1932. We expect improvement in this situation.

In our Libyan petroleum operations, in which we are associated with Standard Oil Company (New Jersey), and Texas Gulf Producing Company, two successful wells in an entirely new area were brought in during 1960.

For a copy of the Company's 1960 Annual Report, write to the Public Relations Department, 3 Hanover Square, New York 4, N. Y.

Highlights of the Year's Operations

Year Ended December 31	1960	1959
Sales and Operating Revenues	$552,870,918	$476,789,610
Net Income After Taxes	$ 16,220,381	$ 16,466,440
Per Share of Common Stock	$ 3.22	$ 3.35
Cash Dividends Paid:		
Preferred Stock	$ 928,664	$ 928,664
Common Stock	$ 7,579,657	$ 7,343,155
Per Share — at rate of	$ 1.60	$ 1.60
Stock Dividend Paid on Common	2%	2%
Net Working Capital	$133,052,482	$138,135,774
Current Ratio	2.3 to 1	2.5 to 1
Net Fixed Assets	$275,331,819	$232,735,277
Stockholders' Equity per Common Share	$ 49.28	$ 48.89
Number of Common Shares Outstanding	4,874,816	4,771,540
Number of Common Stockholders	31,306	30,052
Number of Employees	40,600	41,000

W. R. GRACE & CO.

Executive Offices: 7 Hanover Square, New York 5, N. Y.

GRACE

Dimethyl sebacate, dms., c.l., works lb. 1.31 - —
dms., l.c.l., works lb. 1.30 - —
tanks, works lb. 1.28 - —
Dimethyl sulfate, ret. dms., c.l., works lb. .17½- —
ret. dms., l.c.l., works lb. .18½- —
tanks, works lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .17½- —
dms., l.c.l., works lb. .18½- .19½
tanks, works lb. .15 - —
Dimethyl sulfoxide, dms., c.l., f.o.b. works lb. .35 - —
dms., l.c.l., same basis lb. .37 - .38
tanks, same basis lb. .33 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .38 - —
dms., l.c.l., frt. equald, 100% basis lb. .38½- —
tanks, frt. equald, 100% basis. lb. .28 - —
40% soln., dms., c.l., frt. equald., 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 - —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½- —
dms., l.c.l., works lb. .33 - .34
tanks, works lb. .30 - —

2,4-Dinitroaniline, dms., frt. alld lb. .75 - —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies. lb. 1.61 - —
Dinitroaniline orange toner prices 1c. higher W of Rockies.
m-Dinitrobenzene, 89°C., dms. lb. .26 - —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E. lb. .17¼- —
dms., l.c.l., frt. alld. E. lb. .17¾- —
tanks, frt. alld. E. lb. .17 - —
2,4-Dinitrophenol bbls. lb. .41 - —
2,4-Dinitrotoluene, oil, dms. lb. .11 - —
Refd., 63°C., dms. lb. .23 - —
Dioctyl adipate, dms., c.l., works lb. .42½- —
dms., l.c.l., works lb. .43½- —
tanks, works lb. .40 - —
Dioctyl phthalate, dms., c.l., frt. alld. E lb. .29 - —
dms., l.c.l., frt. alld. E lb. .30½- —
tanktrucks, 1,000-1,999 gals., same basis lb. .27 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26½- —
Dioctyl phthalate prices ¾c. higher in West.
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works lb. .62¼- —
dms., l.c.l., works lb. .62¼ —
tanks, works, dlvd. lb. .59¼- —
1,4-Dioxane, dms., c.l., frt. alld. E. lb. .31½- —
dms., l.c.l., frt. alld. E. lb. .33 - —
tanks, frt. alld. E lb. .29 - —
Prices in the west are 2c. per lb. higher.

Dipentaerythritol, bgs., c.l., t.l., dlvd. E. lb. .34 - —
bgs., l.c.l., l.t.l., dlvd. E. lb. .35 - —
Dipentene, dest.-dist., dms., c.l., works gal. .58 - —
dms., l.c.l., works lb. .62 - —
dms., l.c.l., ex whse. gal. .78 - —
tankcars, works gal. .41 - —
Steam dist., dms., c.l., works, South gal. .72 - —
dms., l.c.l., dlvd. New York gal. .91 - —
tanks, works, South lb. .55 - —
Dip oil (see Tar acid oil).
Diphenolic acid, 1,000-lb. or more, bgs., works lb. .75 - —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works lb. 1.00 - —
Diphenyl, bgs., c.l., t.l., works lb. .16¾- —
bgs., l.c.l., works lb. .18½- —
tanks, works lb. .15¾- —
Diphenyl oxide, perfume grade, cns. lb. .55 - .70
Diphenyl phthalate, dms., c.l., works. lb. .52 - —
dms., l.c.l., works lb. .54 - —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald. lb. .32 —
bgs., l.c.l., same basis lb. .34 —
Refd., fused, tanks, same basis. lb. .29 - —
Refd., diphenylamine in dms., ½c. per lb. higher.
Diphenylguanadine, bgs., dms., ton lots, frt. alld. lb. .51 - —
bgs., smaller lots, frt. alld. lb. .52 - —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., frt. alld. lb. .18½- —
tanks, frt. alld. lb. .14¼- —
Dipropylene glycol prices 1c. higher in West.

Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .29 - —
dms., l.c.l., same basis lb. .31¼- —
tanks, same basis lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.80 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld. lb. .71 - —
dms., smaller lots, frt. alld. lb. .72 - —
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld lb. .58 - —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald. lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60%, dms., c.l., works, 100% basis lb. 1.00 - —
dms., l.c.l., works, 100% basis. lb. 1.05 - —
tanks, same basis lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E. lb. .50 - —
dms, l.c.l., l.t.l., same basis lb. .52 - —
Dodecylbenzene, dms., c.l., f.o.b., works, frt equald. lb. .134 - —
dms., l.c.l., same basis lb. .144 - —
tanks, same basis lb. .11 - —
Dodecylphenol, c.l., frt. alld. lb. .22½- —
dms., l.c.l., same basis lb. .23½- —
tanks, same basis lb. .20 - —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher.

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:
Blue, FD&C, No. 1 lb. 15.65 -17.60
No. 2 lb. 15.65 -17.60
Green, FD&C, No. 1 lb. 15.65 -17.60
No. 2 lb. 19.60 -22.85
No. 3 lb. 31.30 -35.90
Red, FD&C, No. 2 lb. 3.30 - 4.10
No. 3 lb. 19.60 -22.85
No. 4 lb 5.55 7.50
Dyes, coaltar, certified colors for drugs and cosmetics 500-lb and 1-lb. lots. dlvd:
Yellow, FD&C, No. 5 lb. 3.30 - 4.10
No 6 lb 3.30 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:
Black, D&C, No. 1 lb. 10.50 -10.95
Brown, D&C, No. 1 lb. 15.65 -16.10
Green, D&C, No. 5 lb. 15.65 -16.10
No. 6 lb. 15.65 -16.10
No. 7 lb. 14.35 -14.80
Orange, D&C, No. 3 lb. 10.50 -10.95
No. 4 lb. 19.60 -20.05
No 5 lb 3.80 4.25
Red, D&C, No. 17 lb. 10.50 -10.95
No. 18 lb 23.60 -24.00
No. 19 lb. 15.00 -15.45
No. 21 lb 3.90 4.35
No. 22 lb. 10.50 -10.95
No. 28 lb. 24.15 -24.65
No 33 lb. 17.00 -17.45
Violet, D&C, No. 2 lb. 15.65 -16.10
Yellow, D&C, No. 7 lb. 10.50 -10.95
No. 8 lb. 10.50 -10.95
No. 10 lb. 13.05 -13.50
No 11 lb. 13.05 -13.50
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:
Blue, Ext., D&C, No. 1 lb. 15.65 -16.10
Green, Ext., D&C, No. 1 lb. 15.65 -16.10
Red, Ext., D&C, No. 1 lb. 13.05 -13.50
Yellow Ext. D&C. No 1 lb 10.50 10.95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd No.
11110 Brilliant scarlet BN lb 1.79 - —
13390 Fast blue SR lb. 1.57 - —
14025 Yellow 2G lb. 1.26 - —
14030 Orange R, extra, conc. lb. 1.64 - —
14645 Chrome black T lb. .77 - —
14720 Rubine XX, conc lb. 1.76 - —
15510 Orange Y, extra conc. lb. 83 - —
15575 Orange RR lb. 99 - —
15620 Fast Red A, conc. lb. 1.77 - —
15705 Chrome blue black R, conc. lb. 1.12 - —
16150 Scarlet 2RL lb. 1.22 - —
16255 Brilliant scarlet 3RN, conc. lb 1.26 - —
16230 Fast light, orange 2G lb 1.39 - —
17590 Brown PG lb. 3.00 - —
18050 Phloxine 2G lb. 1.16 - —
18055 Fuchsine 6B lb. 1.55 - —
18965 Fast yellow 2G lb. 2.32 - —
19140 Yellow XX lb. 2.48 - —
19555 Yellow NN, conc. lb 3.67 - —
20170 Brown Y lb 1.33 - —
20470 Blue black, extra, conc. lb. 1.44 - —
21010 Brown, RX, conc lb. 1.42 - —
22240 Scarlet B lb 2.81 - —
22310 Red FC lb. 1.57 - —
22311 Brown MCW lb. 1.59 - —
22610 Blue 2B, extra conc lb. 1.51 - —
23500 Red 4BX, conc. lb. 1.80 - —
24410 Sky blue FF, extra, conc. lb. 1.95 - —
24895 Brilliant yellow, conc. lb. 3.27 - —
26360 Navy blue 3R, conc. lb. 1.84 - —
26695 Black F, conc. lb. 2.30 - —
26900 Milling Red 3R, conc lb 2.24 - —
27075 Neutral black 2B, conc lb. 2.75 - —
27720 Gray L lb 2.18 - —
29185 Fast scarlet 4BNC lb 2.23 - —
30015 Diazo black VJ conc. lb. 2.48 - —
30045 Yellow brown K, extra lb. 1.45 - —
30235 Black EB, 200% lb. 1.33 - —
30295 Green BY, conc. lb. 1.07 - —
35660 Brown B lb. 2.89 - —
37565 Naphthol SWF lb 1.85 - —
40000 Yellow 2G lb. 1.44 - —
41000 Yellow OX lb. 2.45 - —
42000 Green V, crystals lb. 2.73 - —
42040 Brilliant green G crystals lb. 3.62 - —
42090 Blue EG lb. 1.85 - —
42100 Milling green 6B, conc. lb. 4.78 - —
42640 Violet 4BXN lb 2.43 - —
43830 Brilliant blue, BBG lb 2.44 - —
44045 Blue B, extra conc. lb. 3.61 - —
45170 Red BX lb 4.76 - —
50415 Nigrosine SSJ lb. 1.03 - —
52015 Blue GXX lb. 2.54 - —
58005 Alizarin red SC lb. 3.64 - —
59700 Golden orange GFD, single paste lb. 2.70 - —
59710 Flaming orange 6RD double powder lb. 4.90 - —
59800 Dark blue BO, single paste. lb. 2.28 - —
59825 Jade green NC supra, double paste lb. 1.75 - —
61570 Alizarin green CG, extra lb. 3.81 - —
63010 Alizarin blue SAPG lb 3.90 - —
63615 Alizarin blue black B lb 3.26 - —
69825 Blue BLFD double paste lb. 2.76 - —
70800 Brown BR single paste lb 2.03 - —
Dyes, coaltar oil-soluble, 100-lb drums, dlvd. No
12140 Oil scarlet BL lb 1.87 - —
12055 Oil orange 7078 V lb 1.38 - —
26120 Oil red N 1700 lb 1.94 - —
42535B Methyl violet base lb 1.88 - —
44045B Victoria blue base lb 4.06 - —
50415B Oil black 8603 lb. .80 - —
61565 Alizarin cyanine green base. lb. 6.13 - —
Dyes, coaltar, spirit soluble, 100 lb. dms., divd., Black RB lb. 3.89 - —
Spirit brown GN lb. 5.30 - —
Spirit orange R conc. lb. 5.87 - —
Spirit red B conc. lb 6.41 - —
Pr. 517 Spirit yellow 2R conc lb 4.62 - —
Pr. 554 Spirit blue THN lb 5.06 - —

E

Echinacea root, bls. lb 1.25 —
Elm bark, grinding, bls. lb 30 .32
Powd., bbls., bxs lb 60 —
Select, bundles lb 75 —
Emetine hydrochloride, USP, bots oz. 48.40 - —

AMOCO PANASOL
AROMATIC SOLVENTS
FOR INSECTICIDE APPLICATIONS

FOR EXCELLENT INSECTICIDE SOLUBILITY AND LOW PHYTOTOXICITY, CONSIDER PANASOL AN-2K OR RX-4. PROMPT DELIVERY, SKILLED TECHNICAL SERVICE.

AMOCO CHEMICALS CORPORATION
Department 4629
130 East Randolph Drive
Chicago 1, Illinois

Please send me
☐ Information on PANASOL AN-2K
☐ Information on PANASOL RX-4
☐ Price & Shipping Information

Possible Application_____
Name_____
Position_____
Company_____
Address_____

Endrin, tech. dms., 100-lb. or more, 100% basis, dlvd. lb. 2.77 • —
Eosin red toner, bbls. works . . . lb. 1.93 • —
Ephedrine syn., USP, anhyd., bots. 100-oz. lots oz. .98 • 1.00
hydrous, bots., 100-oz. lots. oz. .92 • —
Ephedrine hydrochloride, NF, dms., 100-oz., f.o.b. works oz. .75 • —
Ephedrine sulfate, USP, cryst., dms., 100-oz f.o.b works oz. .73 • —
USP, powd., dms., 100-oz., same basis oz. .73 • —
Epichlorohydrin, dms., c.l., dlvd lb. .29½- —
dms., l.c.l., dlvd. . . . . lb. .31 • —
tanks, dlvd. . . . . lb. .27 • —
l-Epinephrine base, syn., USP, bots., 100 gram lots gram. .58 • —
Epsom salt (see Magnesium sulfate).
Erigeron oil cns . . . . . lb. 11.00 • —
Ergot, NF, dms., tin-lined . . . . . lb. 2.00 • 2.50
Eserine salicylate, bots . . . . . oz. 34.50 • 40.00
Eserine sulfate bots . . . . . oz. 86.00 • —
Ester gum, gum rosin type, dms., c.l. dlvd. Ill., Md. Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St Paul Va., W Va lb. .18½- —
Wood-rosin type dms. c.l., same basis lb. .18½- —
Ether (see specific product)
Ethyl acetate, nat., ferment, 85-88%, dms. c.l. dlvd lb. .15 • —
dms. l.c.l., dlvd lb. .16½- —
tanks dlvd lb. .12½- —
95-98% dms. c.l., dlvd lb. .15¼- —
dms. l.c.l., dlvd lb. .16¾ —
tanks dlvd lb. .12¾ —
99% dms., c.l., dlvd . . . . . lb. .15½- —
dms. l.c.l. dlvd lb. .17 —
tanks dlvd lb. .13 —
syn., 95-98%, dms., c.l., dlvd . . . lb. .15 • —
dms. l.c.l., dlvd lb. .16½ —
tanks dlvd lb. .12½- —
Ethyl acetate syn. 95-98%, dms., c.l., dlvd lb. .15¼- —
dms. l.c.l., dlvd . . . . . lb. .16¾ —
tanks dlvd . . . . . lb. .12¾ —
99% dms. c.l. dlvd. . . . . lb. .15½- —
dms., l.c.l., dlvd. . . . . lb. .17 —
tanks dlvd . . . . . lb. .13 —
Ethyl acetoacetate dms., c.l., dlvd. lb. .58½- —
dms. l.c.l. dlvd . . . . . lb. .60 —
tanks, dlvd . . . . . lb. .56 —
Ethyl acrylate dms., c.l., t.l., dlvd. lb. .34¾- —
dms., l.t.l., dlvd . . . . . lb. .35¾- —
tanks, dlvd. . . . . lb. .32¼- —
Ethyl alcohol 190 pf., USP, tax paid dms c.l. dlvd. E of Rockies gal 20.63 —
dms. l.c.l. same basis gal 20 73 -20 84
USP, tax-free, dms., c.l., dlvd. E. of Rockies . gal. .68 • —
dms., l.c.l., same basis gal. .78 .89
tanks, same basis gal .52 —
Ethyl alcohol, absolute 200 pf., tax paid dms dlvd E of Rockies gal 21 75 —
dms. l.c.l., same basis gal. 21.85 -21.96
tanks same basis gal 21 59 —
Ethyl alcohol denatured (see Denatured alcohol, ethyl)
Ethyl aminobenzoate USP (see Benzocaine).
Ethyl amyl ketone dms. c.l., dlvd. lb. .40 —
dms. l.c.l. same basis . . . lb. .21½ —
tanks same basis . . . . lb. 17½ —
Ethyl benzoate bots . . . . . lb. .75 1.00
Ethyl bromide tech., 98%, dms. c.l., frt alld. E lb. 43 —
dms. l.c.l. frt alld E lb. 45 —
tanks, frt. alld. E . . lb. .40 • —
2-Ethyl butyl alcohol, dms., c.l., works lb. .30 —
dms., l.c.l., works lb. .30¾- —
tanks, works lb. .28 • —
Ethyl butyl ketone dms. c.l., t.l., works lb. .36 —
dms l.c.l., t.l works lb. .36¾- —
tanks works lb. .34 —
Ethyl butyrate dms. works lb. .85 1.00
Ethyl carbamate (see Urethane)
Ethyl cellulose, vis 4 cps., ngs., 5,000 lb lots or more, frt. alld E lb. .73 • —
bgs smaller ots frt alld E lb. 75 • —
vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E . lb. .68 • —
bgs., smaller lots. frt alld E. lb. .70 —
Ethyl chloride tech. cyls., works. lb. .20 22
dms., works . . . . lb. .18 20
tanks works lb. 10
Ethyl cinnamate, cns . . . . . lb. 3.35 - 3.50
Ethyl ethanolamines, mixed, dms., c.l., dlvd E lb. .43½ —
dms., l.c.l. dlvd E lb. .44½- —
tanks dlvd E lb. .41½- —
Ethyl ether, absolute ACS dms lb. .37 —
Anesthesia USP dealers, 1-lb. cns lb. 1.01 • —
½ lb. cns . . . . . lb. 1.09 • —
¼-lb cns . . . . . lb. 1.21 —
Indust. dms. c.l. dlvd. . . . . lb. .13½- —
dms., l.c.l., dlvd E . . . . . lb. .15 • —
tanks dlvd E . . . lb. .11 • —
2-Ethyl hexoic acid dms., c.l., t.l., dlvd E lb. .37 —
dms., l.c.l., t.l. dlvd E lb. .38½- —
tanks. dlvd E lb. .34½ —
2-Ethyl hexoic acid 1c. higher W. of Rockies.
2-Ethylhexyl acrylate, dms., c.l. t.l., straight or mixed frt. alld. E lb. .39½- —
dms., t.t.l., same basis . . . . . lb. .40½- —
tanks, same basis . . . . . lb. .37 • —
2-Ethylhexyl alcohol, dms., c.l., dlvd. E lb. .23¾- —
dms., l.c.l., dlvd. E . . . . . lb. .25¼- —
tanks, dlvd. E . . . . . lb. .21¼- —
Ethyl iodide chys. works lb. 3.30 —
Ethyl methacrylate dms. c.l., frt. equald lb. .52 —
dms., t.t.l. frt equald lb. .52½- —
tanks frt equald lb 50 —
Ethyl morphine hydrochloride USP hots oz. 11.85 —
Ethyl oenanthate dms lb 1.05 1.30
Ethyl oxalate (see Diethyl oxalate)
Ethyl silicate dist (see Tetraethyl orthosilicate).
Ethyl silicate 40% available SiO_2 dms., c.l., dlvd. E. . lb. .49 • —
dms., l.c.l., dlvd. E. . . . . lb. .50½- —
tanks, dlvd. E . . . . . lb. .47 • —
N-Ethyl-a-naphthylamine dms. works. lb 1.04 • —
N-Ethyl-m-toluidine tech., liq., tanks frt alld lb. .83 • —
N-Ethyl-o-toluidine, bbls lb. .88 • —
Ethylamine (see Mono- Di- or Tri-)
N-Ethylaniline dms. c.l. frt. alld. lb. .57 • —
dms., t.c.l. frt. alld . . . . . lb. .58 • —
tanks. frt. alld . . . . . lb. .55 • —
Ethylbenzene, 99% dms., c.l., t.l., frt. equald lb. .14 • —
dms., l.c.l., same basis . . . . . lb. .16 • —
tanks, same basis . . . . . lb. .11¼- —
Ethylene, contract refy gate lb. .0475 .052
Ethylene dibromide dms., c.l., frt. equald lb. .30½- —
dms., t.c.l. frt. equald . . . . . lb. .31½- —
tanks frt equald . . . . . lb. .28½- —
Ethylene dichloride dms. c.l. dlvd. lb .11¼- —
dms., t.c.l., same basis . . . . . lb. .13 —
tanks same basis . . . . . lb .09 —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.

Ethylene glycol, indust., dms., c.l., dlvd. E lb. .16 • —
dms., t.c.l., same basis . . . . . lb. .17½- —
tanks, same basis . . . . . lb. .13½- —
Ethylene glycol monobutyl ether, dms., c.l., dlvd. E lb. .22 • —
dms., t.c.l., dlvd. E . . . . . lb. .23½- —
tanks, dlvd. E . . . . . lb. .19½- —
Ethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .21 • —
dms., t.c.l., dlvd. E . . . . . lb. .22½- —
tanks, dlvd E . . . . . lb. .18½- —
Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E lb. .19½- —
dms., t.c.l., dlvd. E . . . . . lb. .21 • —
tanks, dlvd. E . . . . . lb. .17 • —
Ethylene glycol monomethyl etner, dms., c.l., dlvd. E lb. .21 • —
dms., t.c.l., dlvd. E . . . . . lb. .22½- —
tanks, dlvd E . . . . . lb. .18½- —
Ethylene glycol monomethyl ether acetate, dms., c.l., works lb. .29 • —
lb. .29 • —
dms., t.c.l., works . . . . . lb. .29¾- —
tanks, works . . . . . lb. .27 • —
Ethylene glycol monostearate, flake, 150-lb. ctn lb. .33 • —
Ethylene oxide, dms., c.l., dlvd E. lb. .21½- —
dms., t.c.l., dlvd. E . . . . . lb. .24½- —
tanks, dlvd E . . . . . lb. .15½- —
Ethylene trichloride (see Trichloroethylene)
Ethylenediamine, 85-88%, dms., c.l., dlvd E., 100% basis lb. .42 • —
dms. t.c.l. dlvd E., 100% basis. lb. .43 • —
tanks, dlvd. E., 100% basis lb. .40 • —

Ethylvanillin, 100-lb. fib. dms., 500-lb. 6.75 • —
less than 500-lb. . . . . lb. 7.40 • —
Eucalyptol, USP, cns., dms . . . . lb. .85 • 1.40
Eucalyptus oil, NF, rectified, 70-75%, dms. lb. .45 • —
NF, rectified, 80-85%, dms. . . . lb. .53 • .62
Eugenol, tech., dms . . . . . lb. 0.00 • —
USP, dms. . . . . lb. 1.90 • —
Euphorbia herb, bls . . . . . lb. .12 • .15

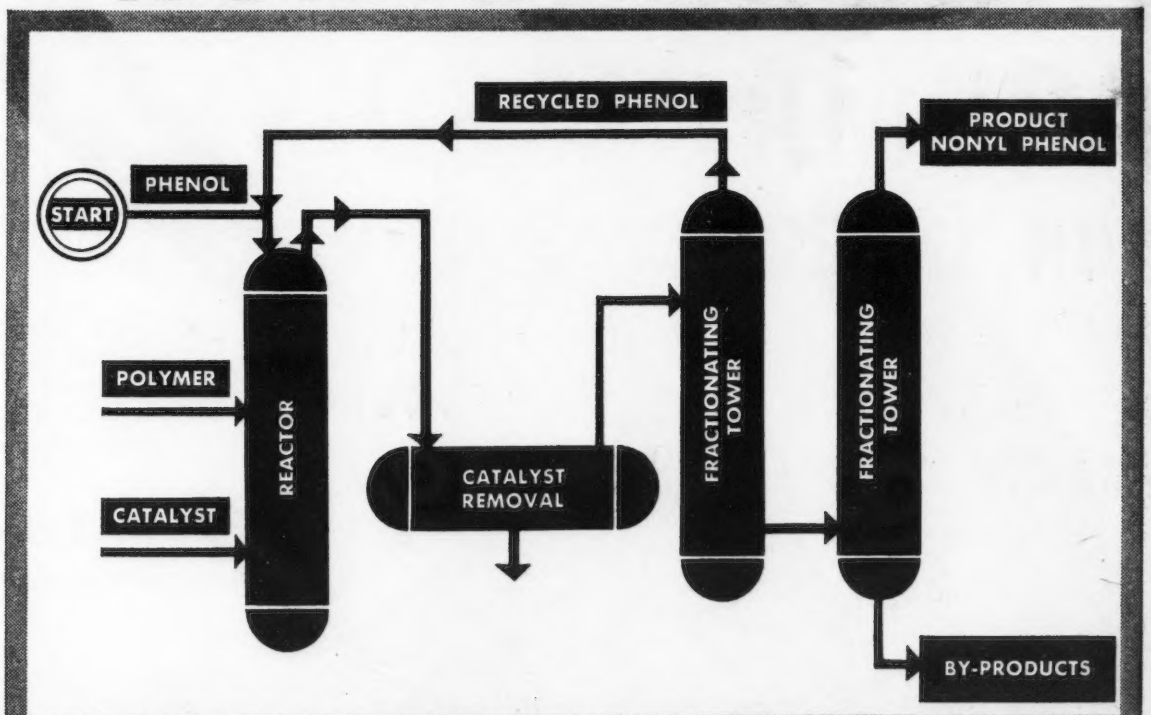
F

F salt paste, tech., dms., works . lb. 2.50 • —
Fennel oil, sweet, USP, cns. . . . lb. 2.60 • —
Fennel seed, Argentine, bgs . . . lb. .16 • —
French, light, bgs . . . . . lb. .16 • —
Indian, light, bgs . . . . . lb. .17½- —
Rumanian, bgs . . . . . lb. .14 • —
Yugoslav, light bgs . . . . . lb. .16½- —
Fenugreek seed, Moroccan, bgs lb. .09 • —
Ferric chloride, anhyd., tech., 350-lb. dms., c.l., works . . 100 lbs. 8.00 • —
dms., l.c.l., works . . . . 100 lbs. 9.00 • —
Indust., cryst., bbls., c.l., works. 100 lbs. 5.25 • 6.75
bbls., t.c.l., works 100 lbs 5.75 7.25
42° Be., photo grade, cbys., c.l., works 100 lbs 7.25 8.25
sewage grade, tanks, frt equald. 100% basis 100 lbs. 4.00 • —
USP, cryst., dms., t.l., works lb. .08½- —

Ferric citrate, gran., dms. . . . . lb. .86 • —
Ferric hypophosphite, NF, 175-lb. dm lb. 4.25 • —
Ferric naphthenate, liq., 6% Fe, dms. frt alld lb. .28½- —
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E lb. 1.30 • —
Ferric oxides (see iron oxides).
Ferric phosphate NF, soluble, gran. pearls, cs lb. .72 • .75
Ferric pyrophosphate, NF VII, soluble, gran. pearls, 225-lb. dm. lb. .79 • —
Ferric resinate, dms., ton lots, frt. alld lb. .45 • —
Ferric stearate dms., c.l., frt. alld. lb. .39 • —
dms., l.c.l., frt. alld . . . . . lb. .40 • .44
Ferric sulfate, partly hydrated, bgs., c.l., works ton 35.25 —
bgs., l.c.l., works . . . . . ton 36.25 42.25
bulk, c.l., works . . . . . ton 33.25 • —
Ferric-amonium citrate, NF, brown, gran., 100-lb. dms lb. .68 • —
NF, green, gran., 100-lb. dms., frt. equald lb. .68 • —
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29½
Ferric-potassium oxalate, fine gran., 250-lb. dm., f.o.b. works lb. .32½- —
Ferric-sodium oxalate, fine gran., dms lb. .27½- .29½
Ferrous gluconate, USP, 200-lb. dm., frt. equald lb. .96 • —

HARDWORKING JEFFERSON CHEMICALS

NONYL PHENOL



Continuous process assures uniformity

Jefferson's special *continuous process* for producing Nonyl Phenol, on stream since 1959, assures you of a uniformly high quality product in any quantity you require.

Nonyl Phenol is a mixture of monoalkyl phenols, predominately para substituted. The side chains are random-branched alkyl radicals. This alkyl phenol is insoluble in water and dilute aqueous caustic, but soluble in benzene, chlorinated solvents, aniline, heptane, aliphatic alcohols and ethylene glycol. Some of the applications are: an intermediate in anionic and nonionic surface-active agents; a starting material for lubricating oil additives, stabilizers, petroleum demulsifiers, oil-soluble phenolic resins and plasticizers.

Write for free Technical Brochure . . . Jefferson Chemical Company, Inc., 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.

SPECIFICATIONS

Specific gravity	0.94 min.
20/20°C.	0.95 max.
Hydroxyl number	245 min.
	258 max.
Color, Pt-Co scale	100 max.
Boiling range, ASTM, °C.	
IBP:	283 min.
95%	302 max.

SELECT PROPERTIES

Pour point	2°C.
Refractive index, N_D20	1.513
Flash point, (TOC), °F.	300
Dielectric constant, 3500 kc, 23°C.	5.0

HOUSTON • NEW YORK • CHICAGO • CLEVELAND
CHARLOTTE • LOS ANGELES • SAN FRANCISCO

JEFFERSON CHEMICALS

001

Ferrous Sulfate—Hesperidin

Ferrous sulfate gran., bgs., c.l., works	ton.	34.50	—
bgs., l.c.l., dlvd Metropolitan area 100 lbs		3.35	4.25
bbls., c.l., works	ton	40 00	—
bulk, c.l., works	ton.	27 00	—
USP cryst bbls, dms	lb	09½-	.10
Fir balsam, Canada, bbls	gal.	34.00	35.00
Oregon bbls	gal	3.40	4.64
Fir oil, Canada, cns	lb.	1.70	1.75
Fish oil, refd., alkali, dms	lb.	.1330-	.1380
Kettle-bodied, dms.	lb.	.1560-	.1610
Light-pressed, dms.	lb.	.1180-	.1230
tanks	lb.	.1030-	—
Fishliver oil, nat, high potency, 100,000 to 1,500,000 A units per gram dms 1,000,000 units.		.12	—
Fishmeal dom. menhaden 60% protein grd., bgs., Atlantic and Gulf coasts	ton.	105.00	—
Fishscrap com menhaden, dried, 60% protein, grd. bgs., Atlantic and Gulf coasts.	ton.	101.00	—
Fleaseed (see Psyllium seed)			
Folic acid USP. nots fib dms., kilo lots or more gram.		.25	—
10% feed grade fib dms., 3 kilos or more	kilo.	30.00	44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l. dlvd	lb.	0695-	—
tanks, dlvd.	lb.	.0405-	—
Formaldehyde, methanol-free (uninhibited), tanks, dlvd	lb.	.0375-	—
Formic acid, 85%, cbys., c.l., works	lb.	.1570-	—
cbys., l.c.l., works	lb.	.1620-	.1720
90%, cbys., c.l., works	lb.	.1625-	—
cbys., l.c.l., works	lb.	.1675-	.1775
Fringetree bark, bls	lb.	.65	.70
Fumaric acid, tech., 250-lb. dms., c.l., frt. equald	lb.	.23¼-	—
dms., l.c.l., frt equald	lb.	.24¾-	—
Fumaric acid in bags ½c. per lb less.			
Furfural dms. c.l. works	lb.	.13	—
dms., l.c.l., works	lb.	.14	—
tanks, dlvd E	lb.	.11½-	—
tanks, dlvd. W	lb.	.12½-	—
Furfuryl alconol, cns., works	lb.	.28	—
dms., c.l., t.l., Newark, N. J.	lb.	.19½-	—
dms., l.c.l., t.l.l., Newark, N. J.	lb.	.20½-	—
dms., c.l., t.l., Memphis, Tenn.	lb.	.18	—
dms., l.c.l., l.t.l., Memphis, Tenn.	lb.	.19	—
tanks, dlvd. E. of Denver	lb.	.175	—
Fusel oil, refd dms., c.l., dlvd	lb.	.18	—
dms., l.c.l., dlvd.	lb.	.19½-	—
tanks, dlvd.	lb.	.15½-	—

G

G salt, bbls, frt. alld., 100% basis	lb.	.73	—
Gallic acid NF VII, bbls., 1,000-lb. lots	lb	2.00	—
bbls. smaller lots	lb	2.02	2.22
Gallic acid, tech., bbls., 1,000-lb. lots	lb.	1.78	—
bbls., smaller lots	lb	1.80	2.00
Gamma acid, dry grd., bbls., frt. alld.	lb.	1.75	—
Gammapicoline (see g-picoline).			
Garlic oil, dom., bots.	oz.	4.75	6.05
imp., bots.	oz.	4.50	5.00
Gaultheria oil (see Wintergreen oil).			
Gelatin, edible, 75 AOAC test, bbls., c.l., dlvd	lb.	.55	—
150 AOAC test, bbls., c.l., dlvd.	lb.	.64	—
200 AOAC test, bbls., c.l., dlvd.	lb.	.70	—
225 AOAC test, bbls., c.l., dlvd.	lb.	.74	—
275 AOAC test, bbls., c.l., dlvd.	lb.	.82	—
Gelsemium root, bls.	lb.	.30	.35
Gentian root bls.	lb.	.24	—
Grd., bbls., hxs	lb.	.30	—
Powd., bbls, hxs.	lb.	.30	—
Geraniol extra cns, dms.	lb.	1.75	2.40
Soap grade dms	lb	.90	1.75
Standard cns., dms.	lb.	1.65	—
Synthetic dms	lb	1.30	—
Geranium oil, Algerian, cns	lb.	19.00	22.00
Bourbon, cns.	lb.	20.00	22.00
Turkish (see Palmarosa oil).			
Geranyl acetate cns	lb	1.90	2.70
Synthetic dms	lb.	1.45	—
Ginger oil dist. bots	lb.	11.50	14.00
Ginger oleoresin NF from African root, bots	lb.	4.25	5.00
NF. from Jamaican root, bots.	lb.	7.75	—
Ginger root, Cochin, bgs	lb.	.19½-	—
Jamaican, No. 3, bgs	lb.	.28	—
Nigerian, split, bgs	lb.	.20	—
Sierra Leone, bgs	lb.	.35	—
Glauber's salt (see Sodium sulfate).			
Gluconic acid tech. 50% dms., c.l., t.l., f.o.b. works	lb.	.20	—
dms., l.c.l., f.o.b. works	lb.	.21	—
tanks, f.o.b. works	lb.	.17	—

get all the advantages of PVAc EMULSIONS for exterior formulations with CELANESE CL-202

Celanese CL-202 gives you excellent tint retention and durability in exterior water-based paint formulations—as proved in actual outdoor exposures of up to six years. • Low cost, high PVC paints formulated with CL-202 are ideal for a wide variety of exterior surfaces—including previously painted wood, asbestos shingles, and masonry surfaces such as cement, stucco, brick and concrete. • Moreover, paints formulated with CL-202 can accept most of the universal color systems commercially available. (Specific suggested formulations for each color system are available from the Celanese Technical Service Laboratory.) • For complete details on Celanese CL-202 . . . or other Celanese emulsions . . . please write to: Dept.754-D, Celanese Chemical Company, 180 Madison Avenue, New York 16, N. Y.

Celanese®

Celanese Chemical Company is a Division of Celanese Corporation of America.
Canadian Affiliate: Canadian Chemical Company Limited, Montreal, Toronto, Vancouver
Export Sales: Amcel Co., Inc., and Pan Amcel Co., Inc., 180 Madison Avenue, New York 16, N. Y.

Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd.	lb.	.16	—
131 jellygrams, bgs., c.l., same basis	lb.	.16½-	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½-	—
Glue, bone, extracted, dry bone, 191 jellygrams, bgs., c.l., same basis	lb.	.19½-	—
222 jellygrams, bgs., c.l., same basis	lb.	.21	—
Glue, bone, green, 40 jellygrams, bgs., c.l., same basis	lb.	.16	—
86 jellygrams, bgs., c.l., same basis	lb.	.16	—
115 jellygrams, bgs., c.l., same basis	lb.	.16½-	—
Glue, bone, green, 135 jellygrams, bgs., c.l., same basis	lb.	.17½-	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½-	—
180 jellygrams, bgs., c.l., same basis	lb.	.19½-	—
200 jellygrams, bgs., c.l., same basis	lb.	.20½-	—
Bone glue, l.c.l., prices 2c. higher.			
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd	lb.	.18	—
95-149, bgs., c.l., dlvd	lb.	.19	—
122-149, bgs., c.l., dlvd	lb.	.20½-	—
150-177, bgs., c.l., dlvd	lb.	.22½-	—
178-206, bgs., c.l., dlvd	lb.	.25	—
Glue, hide, 207-236, bgs., c.l., dlvd	lb.	.28	—
237-266, bgs., c.l., dlvd	lb.	.30½-	—
267-298, bgs., c.l., dlvd	lb.	.32½-	—
299-330, bgs., c.l., dlvd	lb.	.34½-	—
331-362, bgs., c.l., dlvd	lb.	.36½-	—
363-394 bgs., c.l., dlvd	lb.	.38	—
Glue, hide, 395-427, bgs., c.l., dvld.	lb.	.40	—
428-460, bgs., c.l., dlvd	lb.	.42	—
461-494, bgs., c.l., dlvd	lb.	.44	—
495-529, bgs., c.l., dlvd	lb.	.46	—
Hide glue, l.c.l. prices 2c. higher.			
l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt alld	lb.	1.80	—
fib. dms., 25-lb. lots, frt. alld.	lb.	1.88	—
l-Glutamine, bots., 1-9 kilo lots,	kilo.	150.00	300.00
Bots., 50-kilo lots	kilo.	100.00	—
Bots., 500-kilo lots	kilo.	75.00	—
Glycerine, dom., nat., crude, saponification 88%, tanks dlvd.	lb.	.15	—
nat., crude, soapiye, 80%, tanks, dlvd	lb.	.14	—
nat., refd., USP, CP, 99%, dms., c.l., dlvd	lb.	.28⅛-	—
dms., l.c.l., dlvd	lb.	.29⅝-	—
tanks, dlvd.	lb.	.27⅛-	—
Glycerine, dom. nat., refd., USP, CP, 96%, dms., c.l., dlvd	lb.	.28	—
dms., l.c.l., dlvd	lb.	.28¾-	—
tanks, dlvd.	lb.	.26¼-	—
nat., high gravity, dms., c.l., dlvd	lb.	.28¾-	—
dms., l.c.l., dlvd	lb.	.29½-	—
tanks, dlvd.	lb.	.27	—
Glycerine, dom., syn., dms., c.l., dlvd	lb.	.29	—
dms., l.c.l., dlvd	lb.	.29¾-	—
tanks, dlvd.	lb.	.27¼-	—
Imp., nat., crude, soaplye, 80%, c.i.f.	lb.	.14	—
Glycine (see Aminoacetic acid).			
Glycerol (see Glycerine).			
Glycolic acid (see Hydroxyacetic acid).			
Graphite, 95-97%, powd., bgs., fib. dms., ex whse	lb.	.29	.31½
Graphite, flake, No 1, 90-95%, bgs., fib. drs., ex whse	lb.	.29	.31
No. 2, 90-95%, bgs., fib. dms., ex whse	lb.	.29	.31
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works	lb.	.40	—
dms., l.c.l., same basis	lb.	.42	—
tanks, same basis	lb.	.39	—
Glyoxal, 30%, dms., c.l., works	lb.	.20½-	—
dms., l.c.l., works	lb.	.21¼-	—
tanks, works	lb.	.18	—
Golden seal root, NF, tested, bls.	lb.	2.90	3.00
Gramicidin, 1 to 5 kilos, f.o.b. works.	gram.	4.25	—
Grapefruit oil, dms	lb.	2.75	2.90
Graphite, amorp., powd., bgs., fib. dms., ex whse	lb.	.06	.09½
Cryst., 88-90%, powd., bgs., fib. dms., ex whse	lb.	.19	.21½
90-92%, powd., bgs., fib. dms., ex whse	lb.	.21	.24½
Grease, white, choice all hog, tanks, dlvd	lb.	.09¾	Nom.
Yellow, tanks, dlvd	lb.	.05⅞-	—
Grease oil, No. 1, dms., c.l., f.o.b. Chicago	lb.	.12½-	—
dms., l.c.l., same basis	lb.	.14½-	—
tankcars, same basis	lb.	.11	—
Extra winter, strained, dms., c.l., Chicago	lb.	.15½-	—
dms., l.c.l., same basis	lb.	.17½-	—
tankcars, same basis	lb.	.14	—
Grease oil, prime, burning, dms., c.l., same basis, Chicago	lb.	.17½-	—
dms., l.c.l., same basis	lb.	.19½-	—
tankcars, same basis	lb.	.16	—

Other areas ¾c. higher, except Texas and West Coast, 1¼c. higher.

GREEN PIGMENTS
Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb, bls.	lb.	40	—
Guaiacol NF cryst., dms., tins	lb	2.10	2.15
liq., cbys., dms	lb.	2.30	2.40
Guaiacwood oil cns	lb	65	.80
Guaiacol carbonate NF VII, dms	lb	3.40	3.45
Guar gum, edible., bgs., c.l., f.o.b. shipt. pt	lb.	.38	—
bgs., l.c.l. same basis	lb.	.40	.42
Indust., bgs., c.l., same basis	lb.	.32	—
Tech., bgs., c.l., same basis	lb.	.30	—

GUMS
Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

H

H acid, dry, bbls. c.i., frt. alld., 100% basis	lb.	1.00	—
bbls., l.c.l., same basis	lb.	1.05	—
Hansa yellow 10 G, bbls., dlvd. E. of Rockies	lb	2.45	—
Hansa G yellow, pigment, bbls	lb	2.20	—
Hawthorn berries, bgs.	lb.	.18	.20
Heliotropin 100-lb lots, dms.	lb	2.60	3.40
Hellebore root dom., green, bls	lb	70	75
Helonias root bls.	lb.	1.50	—
Hemlock oil, cns.	lb	2.55	3.00
Henbane leaves, bls	lb.	.40	.45
Heptachlor dms: c.l., t.l., frt. alld., 100% basis	lb.	.96	—
Heptane, indust., tankcars, New Jersey and New York	gal.	.20	—
Houston Texas	gal.	1625-	—
Hesperidin, purif., 50 kilos, f.o.b. works	kilo.	19.70	—

Great names of industry protect precious trademarks with

J. T. BAKER PROCESSING CHEMICALS

J.T.Baker CHEMICAL

Extremely high standards of purity and uniformity at competitive prices. These are three reasons great names of industry specify J. T. Baker processing chemicals. They know J. T. Baker precision tonnage chemicals help them manufacture finer products faster at less cost . . . help them safeguard their precious trademarks.

For more than a half-century, J. T. Baker has worked with purchasing, scientific and production executives to supply processing chemicals controlled to predetermined specifications. Whether you use Baker chemicals as starting materials, intermediates or ingredients, you will find they perform smoothly . . . minimize variables . . . reduce costs and rejections.

A few world-famous trademarks of J. T. Baker customers appear on this page. On the following pages, five great firms explain how J. T. Baker industrial chemicals benefit them in their respective industries. We believe you will find their experiences interesting and rewarding.

J. T. Baker Chemical Co.

Phillipsburg, New Jersey

Precision industries benefit from J.T

BAKER PROCESS CHEMI

FIVE GREAT NAMES of industry and their world-famous trademarks appear on this and the following page. They are among the hundreds of firms that specify J. T. Baker processing chemicals.

Each firm, naturally, differs in its needs. But each specifies J. T. Baker for the same basic reasons:

> J. T. Baker industrial chemicals are manufactured to extremely high, defined standards of purity and physical uniformity ton after ton. They are competitively priced. They provide the key to faster, more efficient, more profitable processing.

To quote Polaroid Corporation: "*You have given us good reason to rely on the purity and uniformity of the processing chemicals you supply us in tonnage.*" Other expressions of satisfaction appear below—from Pfizer, Texas Instruments, and McGraw-Edison.

Perhaps you, too, can more profitably safeguard your product and precious trademark with J. T. Baker processing chemicals. Needless to say, we would always consider your trademark as precious as our own.

"...you have given us good reason to rely on the purity and uniformity of the processing chemicals you have supplied us in tonnage."

J.T.Baker CHEMICALS

A CLICK OF THE SHUTTER...10 seconds later a photograph of brilliance and clarity. That's the marvel of the Polaroid Land Camera.

To quote Polaroid, *"This high quality demands unfailing purity of the processing reagents "built into" the picture rolls."*

As a supplier of these processing chemicals, J. T. Baker is proud of the words "unfailing purity." To quote again from Polaroid's letter, *"...you have given us good reason to rely on the purity and uniformity of the processing chemicals you have supplied us in tonnage."*

J. T. Baker is equally proud of the word "tonnage." We are proud of our ability to manufacture processing chemicals of unfailing purity and uniformity in any desired quantity—and at competitive prices.

May we suggest you investigate the advantages and economies of J. T. Baker Purity by the Ton for your operation? In industry after industry, these high quality chemicals increase processing speed...reduce costs...minimize variables...eliminate purification steps...reduce rejections. You can be certain, too, of on-time deliveries and attentive, competent service.

Needless to say, if we are honored with your business, we shall always regard your trademark as precious as our own.

J. T. Baker Chemical Co.
Phillipsburg, New Jersey

PURIT

BAKER PROCESSING CHEMICALS... one of the guardians of this precious trademark
"We have a high regard for Baker production chemicals and Baker services."
Pfizer
J. T. Baker Chemical Co.
PURITY BY THE TON—FOR PRODUCTION USE

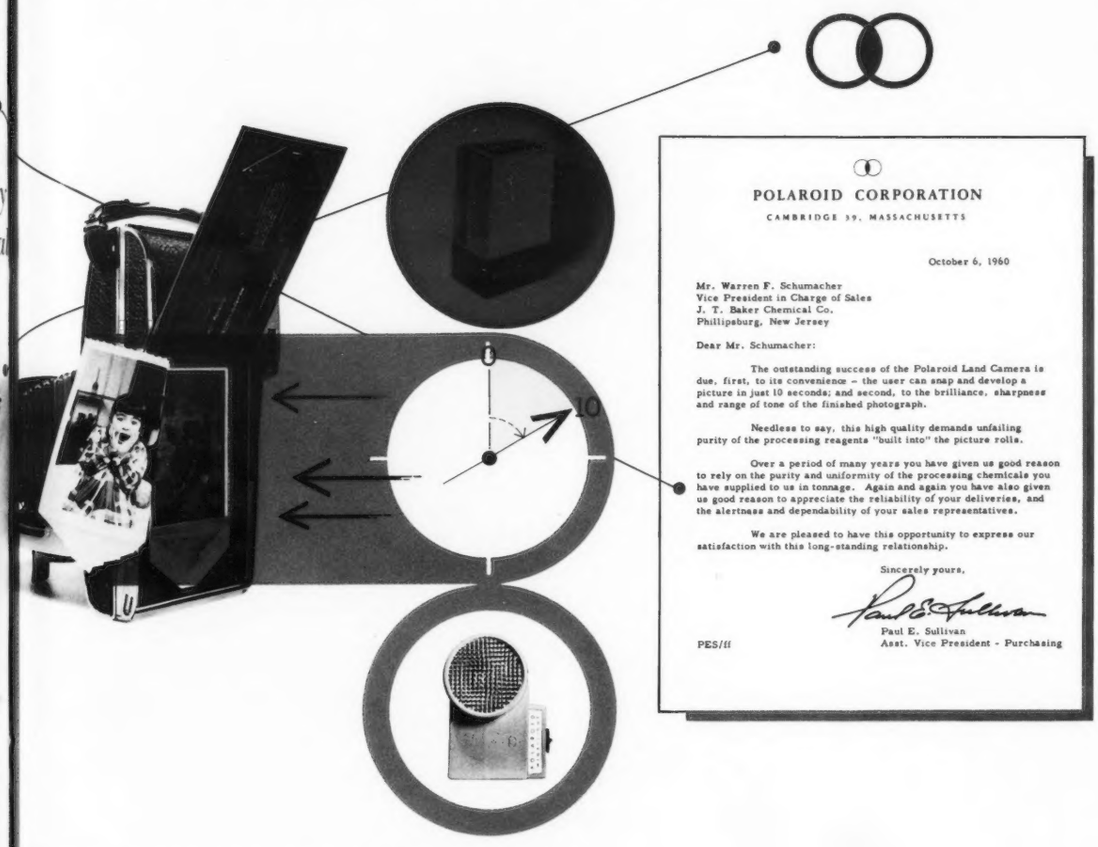
PFIZER—"We have a high regard for Baker production chemicals and Baker services."

BAKER PROCESSING CHEMICALS... one of the guardians of this precious trademark
"...Baker repeatedly supplies us high quality bulk chemicals...to maintain product quality ...and reduce costs"
J. T. Baker Chemical Co.
PURITY BY THE TON—FOR PRODUCTION USE

McGRAW-EDISON—"Baker repeatedly supplies us high quality bulk chemicals. By minimizing variables we have been able to maintain the quality of our product and at the same time reduce costs."

from J.T.BAKER *precision processing chemicals*

S S I N EMICALS... *one of the guardians of this precious trademark*



POLAROID CORPORATION
CAMBRIDGE 39, MASSACHUSETTS

October 6, 1960

Mr. Warren F. Schumacher
Vice President in Charge of Sales
J. T. Baker Chemical Co.
Phillipsburg, New Jersey

Dear Mr. Schumacher:

The outstanding success of the Polaroid Land Camera is due, first, to its convenience – the user can snap and develop a picture in just 10 seconds; and second, to the brilliance, sharpness and range of tone of the finished photograph.

Needless to say, this high quality demands unfailing purity of the processing reagents "built into" the picture rolls.

Over a period of many years you have given us good reason to rely on the purity and uniformity of the processing chemicals you have supplied to us in tonnage. Again and again you have also given us good reason to appreciate the reliability of your deliveries, and the alertness and dependability of your sales representatives.

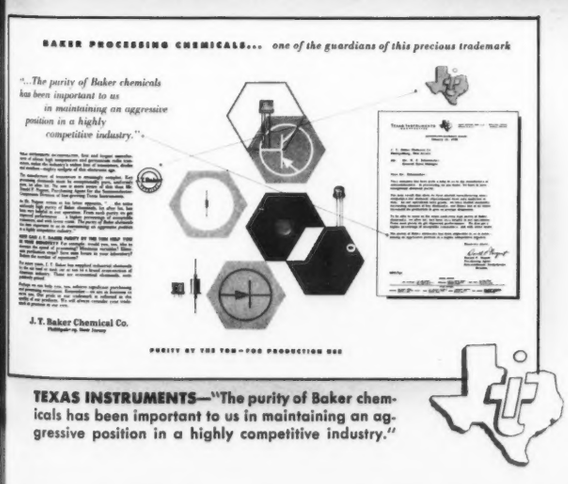
We are pleased to have this opportunity to express our satisfaction with this long-standing relationship.

Sincerely yours,

Paul E. Sullivan
Asst. Vice President - Purchasing

PES/ff

PURITY BY THE TON—FOR PRODUCTION USE


BAKER PROCESSING CHEMICALS... one of the guardians of this precious trademark
"...The purity of Baker chemicals has been important to us in maintaining an aggressive position in a highly competitive industry."
J. T. Baker Chemical Co.
PURITY BY THE TON—FOR PRODUCTION USE

TEXAS INSTRUMENTS—"The purity of Baker chemicals has been important to us in maintaining an aggressive position in a highly competitive industry."

. . . costs are lower because process stages are saved

Many buyers associate precision quality in processing chemicals with high price. This need not be so. J. T. Baker precision chemicals are competitively priced. Their *controlled* purity and uniformity often save the user a purification or processing step – which further reduces their cost.

If starting materials of controlled quality are essential for your operation, J. T. Baker may be able to make your production job easier . . . faster . . . more profitable. You can be sure, too, of on-time shipments and expert, attentive service.

J. T. Baker Chemical Co.
Phillipsburg, New Jersey

J.T.Baker CHEMICAL

J. T. BAKER PURITY BY THE TON

. . . the key to reduced manufacturing costs

BAKER PROCESSING CHEMICALS... *one of the guardians of this precious trademark*

"...the purity and uniformity of your product...made possible important purchasing and processing economies."

THE CONQUEST OF THE REFRACTORY METALS—such as tantalum, tungsten and molybdenum—represents a triumph of modern metallurgical science. Inseparable from the story of their development is the name Fansteel Metallurgical Corporation.

As Fansteel points out in their letter opposite, proper starting materials are particularly important in their processing. To quote: "The quality of the molybdic oxide we use is of the greatest concern. *The purity and uniformity of your product made possible the development of important purchasing and processing economies.*"

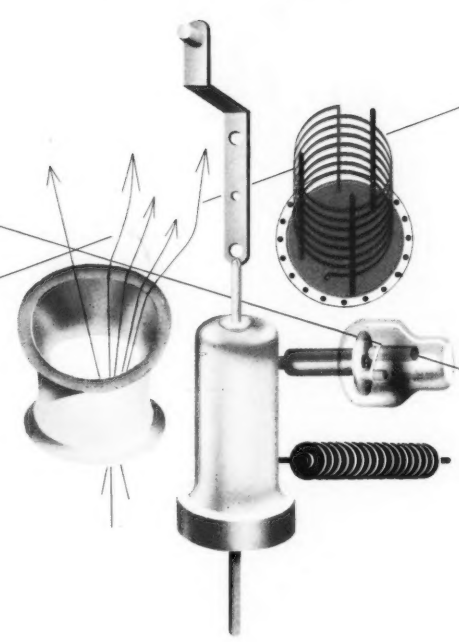
This letter is a matter of great personal pride to us at Baker. For many years Baker has supplied many of America's leading industries with precision industrial chemicals in tonnage quantities at competitive prices—firms like Fansteel who insist on the finest.

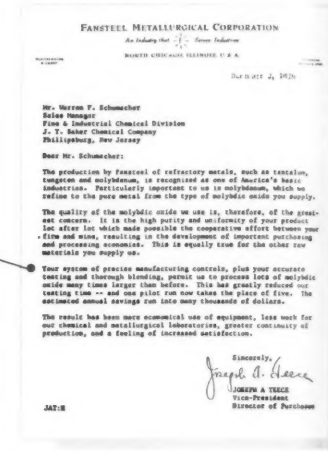
Perhaps a change in your present procurement procedures would result in less work for *your* laboratories, greater continuity of production, a feeling of increased satisfaction, and important purchasing and processing economies.

Baker *Purity by the Ton* may provide the key.

We would be glad to cooperate in a study of the ways Baker industrial chemicals might be used to advantage in *your* organization. Needless to say, we will always consider your trademark as precious as our own—and safeguard it with equal vigilance.

J. T. Baker Chemical Co.
Phillipsburg, New Jersey





FANSTEEL METALLURGICAL CORPORATION
An Industry that Grows Fourteen Industries
NORTH CHICAGO, ILLINOIS, U. S. A.

Mr. Warren F. Schumacher
Sales Manager
Fine & Industrial Chemical Division
J. T. Baker Chemical Company
Phillipsburg, New Jersey

Dear Mr. Schumacher:

The production by Fansteel of refractory metals, such as tantalum, tungsten and molybdenum, is recognized as one of America's basic industries. Particularly important to us is molybdenum, which we refine to the pure metal from the type of molybdic oxide you supply.

The quality of the molybdic oxide we use is, therefore, of the greatest concern. It is the high purity and uniformity of your product lot after lot which made possible the cooperative effort between your firm and mine, resulting in the development of important purchasing and processing economies. This is equally true for the other raw materials you supply us.

Your system of precise manufacturing controls, plus your accurate testing and thorough blending, permit us to process lots of molybdic oxide many times larger than before. This has greatly reduced our testing time -- and one pilot run now takes the place of five. The estimated annual savings run into many thousands of dollars.

The result has been more economical use of equipment, less work for our chemical and metallurgical laboratories, greater continuity of production, and a feeling of increased satisfaction.

Sincerely,
Joseph A. Teece
JOSEPH A. TEECE
Vice-President
Director of Purchases

JAT:E

PURITY BY THE TON—FOR PRODUCTION USE

". . . one pilot run now takes the place of five . . . estimated annual savings run into many thousands of dollars."

. . . FANSTEEL METALLURGICAL CORPORATION

Can uniform processing chemicals reduce variables and cut your costs? Many industrial firms answer emphatically—"*Yes! With J. T. Baker's purity by the ton we achieve real processing economies.*"

Fansteel Metallurgical Corporation, for example, realized big savings through purchases of J. T. Baker processing chemicals. To quote: ". . . *the purity and uniformity of your product made possible the development of important purchasing and processing economies . . . One pilot run now takes the place of five. The estimated annual savings run into many thousands of dollars.*"

Perhaps Baker's controlled quality can also achieve important purchasing and processing economies for you . . . perhaps we can manufacture chemicals to your exact specification. We will gladly cooperate in a study of ways J. T. Baker processing chemicals may be used advantageously in your organization.

J. T. Baker Chemical Co.
Phillipsburg, New Jersey

REGIONAL OFFICES: 122 East 42nd Street, New York 17, N. Y. • 435 North Michigan Avenue, Chicago 11, Ill. • 232 N. Lake Avenue, Pasadena, Calif.

Hesperidin methylchalcone, 50 kilos, f.o.b. works kilo 49.25 - —
Hexachlorophene, dms., 1,100 lbs. or more lb. 1.84 - —
dms., to 1,100 lbs. lb. 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York City lb. .233 - —
bgs., 1,000-19,999-lb. lots, same basis lb. .243 - —
bgs., smaller lots, same basis lb. .253 - —
Hexamethylenetetramine, tech., fib. dms., 1,000-lb. lots or more same basis lb. .250 - —
fib dms. smaller lots, same basis lb. .253 - —
USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia lb. .42½- —
bgs., smaller lots, same basis lb. .43½- .48½
Hexane, industrial, tankcars, New Jersey and New York gal. .20 - —
Houston, Texas gal. .16 - —
l-Hexanol, dms., c.l., works lb. .35 - —
dms., l.c.l., works lb. .35¾- —
tanks, works lb. .33 - —
Hexyl cinnamic aldehyde, dms. lb. 3.95 - 4.00
n-Hexyl methacrylate, dms., c.l., works lb. .75½- —
dms., l.c.l., works lb. .76 - —
Hexyl salicylate, dms. lb. 1.70 - 1.75
Hexylene glycol, dms., c.l., dlvd lb. .17½- —
dms., l.c.l., dlvd. lb. .19 - —
tanks, dlvd lb. .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd lb. 14.00 - —
dms. smaller lots, dlvd lb. 14.50 - —
Homatropine hydrobromide, USP, bots oz. 3.25 - —
Homatropine methylbromide, USP, bots oz. 3.00 - 3.25
Hoofmeal, 17-18% ammonia bulk, c.l. Chicago unit-ton 6.75 - —
Horehound herb, bls lb. .18 - .20
Hydrastis (see Goldenseal)
Hydrazine hydrate, 85%, 240-lb. dms., c.l., works lb. 1.28 - —
240-lb. dms., l.c.l., works lb. 1.35 - 1.55
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works lb 2.92 - —
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd, zone 1 lb. .29¼- —
dms., l.c.l., dlvd, zone 1 lb. .29¾- .30⅛
tanks, dlvd zone 1 lb. .27¼- —
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.
Hydrobromic acid, medicinal, 48%, cbys. frt equald lb. .48 - .56
Hydrochloric acid, anhyd. (see Hydrogen chloride).
Hydrochloric acid, 18°, cbys., c.l., works 100 lbs 2.50 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs 2.90 - 3.05
tanks, works, frt. equald ton 28.00 - —
20°, chys., c.l., works 100 lbs 2.75 - —
chys. l.c.l. dlvd Metropolitan area 100 lbs 3.15 - —
tanks works frt equald ton 30.00 - —
22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys. l.c.l. dlvd Metropolitan area 100 lbs 3.65 - —
tanks. works frt equald ton 35.00 - —
Hydrochloric acid CP, USP, consumers cbys., extra, c.l., works lb. .15¾- —
cbys l.c.l., same basis lb. .17¼- .17¾
5-pint bots., extra cs., c.l., same basis lb. .20¾- —
lb. .20¾- —
Hydrocortisone acetate, bulk, bots., kilo lots or more gram. .95 - —
Hydrocortisone alcohol, bulk, bots., kilo lots or more gram. 1.00 - 1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pint bots., f.o.b. works, pint. .70 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)
Hydrofluoric acid, aqueous, 70%, 55-gal or 30-gal dms., c.l., t.l., dlvd 100 lbs. 19.25 - —
55-gal dms., l.c.l., t.l., dlvd 100 lbs. 20.75 - —
20-gal dms., c.l., t.l., dlvd 100 lbs 21.00 - —
20-gal., dms., l.c.l., t.l., dlvd. 100 lbs. 22.50 - —
tanks, works frt. equald 100 lbs 13.40 - —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming in those states add $2.70 per cwt. for drum delivery
Hydrofluosilicic acid, dms., works, 30% basis lb. .07 - —
Hydrofuramide, dms., fib. ctns., works lb. .30 - .40
50-lb cyls., l.c.l., works lb. .55 - .60
Hydrogen chloride, anhyd., 50-lb. cyls. l.c.l., works lb. .45 - —
Hydrogen cyanide liq., 98%, tanks, works lb. .14 - —
Hydrogen fluoride, anhyd., cyls., dlvd. E lb. .30½- .32½
cyls., dlvd W lb. .39 - —
tanks, works lb. .18 - —
Hydrogen peroxide, 35%, dms., c.l., dlvd lb. .202 - —
dms., l.c.l., dlvd. lb. .211 - —
tanks, dlvd lb. .1800- —
Hydroquinone, photo grade, dms., 50-lbs. f.o.b. works lb. 1.10 - —
Tech., dms., c.l., dlvd. lb. .82½- —
dms. l.c.l. dlvd lb. .84½- —
Hydroquinone monomethyl ether, dms., t.l., dlvd lb. 2.59 - —
dms., t.t.l., dlvd lb. 2.61 - —
Hydroxyacetic acid, tech., 70% dms. Philadelphia and Chicago lb. .11 - —
tanks Belle W Va lb. .073 - —
Hydroxycitronellal, cns. lb. 5.65 - 6.00
Hydroxyethyl cellulose, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point lb. .74 - —
fib. dms. 2,000 to 19,999-lb lots, same basis lb. .79 - —
fib. dms., 100 to 1,999-lb lots, basis lb. .83 - —
Hydroxyethyl cellulose, fib. dms., smaller lots, same basis lb. .93 - —
(Highest viscosity [15,000 cps.] grade is 10c. per lb. higher.)
Hyoscine salts (see Scopolamine)
Hyoscyamine hydrobromide, bots. oz. 7.75 - 8.50
Hyoscyamine sulfate, bots. oz. 7.75 - 8.50
Hypophosphorous acid, purif., 50%, 10-chys. f.o.b works lb 1.95 - —
NF, 50%, 10-cbys., same basis lb. 1.35 - —

I

Ichthammol, NF, dms. lb. .75 - 1.05
Indigo (see Dyes, coaltar, 1171 Indigo, syn.)
Indole, CP, bots. lb. 13.65 - 15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more, dlvd. lb 4.50 - —
50-lb. dms., less than 1,000 lb., dlvd lb 4.75 - —
10 lb cns., 10-50 lbs., dlvd lb 5.00 - —
5 lb. bots., dlvd. lb. 5.25 - —
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. lb. 1.10 - —
Resub., USP, dms., f.o.b. works lb. 2.20 - 2.22
Iodochlorohydroquinolin, USP, dms. lb. 3.60 - —
Iodoform, NF, dms., 300-lbs., f.o.b. works lb. 4.90 - —
dms., 100-lbs., same basis lb. 5.05 - —
a-Ionone, cns. lb. 4.60 - 5.75
b-Ionone, cns. lb. 4.15 - 6.15
Ipecac root, whole, bgs. lb. 8.00 - 8.50
Powd., bbls., bxs lb. 9.50 - 10.00
Irish moss, bleached, prime, bls. lb. .30 - .32
Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .60 - —
bbls., l.c.l., ton lots, same basis. lb. .61 - —
bbls., smaller lots, same basis. lb. .62 - —
Dom., reg. bbls., c.l., dlvd. E lb. .55 - —
alkali-resistant, dom., reg., bbls., c.l., ton lots, same basis lb. .56 - —
bbls., l.c.l., smaller lots, same basis lb. .57 - —
Imp., British, reg., bbls. c.l. dlvd. E lb. .48 - —
bbls., l.c.l., ton lots, same basis lb. .49 - —
bbls., l.c.l., smaller lots, same basis lb. .50 - —
Iron blue dlvd. prices 1c. higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont., Wyo., Utah, Col and Nev.
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works lb. .14¾- —
bgs., l.c.l., works lb. .15 - —
Iron oxide, brown, pure, bgs., c.l., works lb. .14¼- —
bgs., l.c.l., works lb. .14½- —
Iron oxide, metallic, brown, bgs., works lb. .05½- —
Iron oxide, Persian Gulf, red., bgs., c.l., works lb. .08¾- —
Iron oxide, red, dom., pure, bgs., Bethlehem, E. St. Louis, New York City lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works lb. .06½- —
bgs., l.c.l., works lb. .06½- —
Iron oxide, Spanish red, bbls., c.l., ex dock lb. .05¾ Nom
bbls., l.c.l., ex dock lb. .06 Nom
bbls., l.c.l., ex whse, New York. lb. .06½ Nom
Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¾- .07
Peruvian type, bgs., l.c.l lb. .023 .024
Iron oxide, yellow, pure, light lemon shade bgs. c.l. works lb. .12¼- —
other shades, same basis lb. .12 - .12½
Isoamyl alcohol, dms., c.l., works, frt. alld E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Isoborneol cns. lb. 1.44 - 1.80
Isobornyl acetate cns. lb 46 .56
Isobornyl formate, dms. lb. 1.15 - 1.20
Isobornyl propionate, dms. lb. 1.20 - 1.25
Isobutyl acetate, perfume grade. cns lb. .30 - .35
Solvent grade, dms., c.l., dlvd. E. of Rockies lb. .15¼- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
Isobutylene, 99%, tanks, works gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works lb. .75 - —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½- —
dms., l.c.l., dlvd. lb. .28½- —
Tech., dms. c.l. dlvd. lb .22 - —
dms., l.c.l., dlvd. lb. .23½- —
tanks, dlvd lb. .19½ —
Isobutyric acid, dms. c.l., t.l., dlvd. lb. .35 - —
dms., l.c.l., t.t.l., same basis lb. .36½- —
t.c. t.t., same basis lb. .33 - —
Isobutyronitrile, dms., c.l., dlvd. lb. .47½- —
dms., l.c.l., dlvd lb. .48½- —
tanks, dlvd. lb. .45 - —
Isoeugenol, cns. lb. 3.10 - 3.40
Isoniazid, powd., bulk, 50 kilos kilo. 12.00 - —
Isonicotinic acid, 100-lb fib. dms., works lb 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .23½- —
dms., l.c.l., dlvd. E. lb. .25 - —
tanks, dlvd. E. lb. .21 - —
Isopentane, coml. grade, tanks, f.o.b Tex. refy gal. .16½- —
Isophorone, dms., c.l., dlvd lb. .24½- —
dms., l.c.l., dlvd lb. .25¼- —
tanks, dlvd. lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald. lb. .19 - —
dms., l.c.l., same basis lb. .20 - —

ORONITE®

A BIG WHEEL for....

manufacturing
Dibasic Acids
Phthalic Anhydride
Maleic Anhydride
Isophthalic
Fumaric

Technical Assistance

Service

Investing in the Future of the Coatings Industry by:

Pioneering new products • Willingness and capability of increasing production on present products • Building new facilities for other basic products • Offering more extensive warehousing and storage facilities • Providing greater technical assistance and experience in product applications • Strict production controls which can guarantee Oronite material to be second to none in consistent quality.

Give Oronite a call—see for yourself the depth of knowledge and experience available.

CALIFORNIA CHEMICAL COMPANY
ORONITE DIVISION

EXECUTIVE OFFICES • 200 Bush Street, San Francisco 20, California
SALES OFFICES • New York, Boston, Wilmington, Chicago, Cincinnati, Cleveland, Houston, Tulsa, Los Angeles, San Francisco, Seattle
FOREIGN AFFILIATE • California Chemical International, Inc., San Francisco, Geneva, Panama, Sao Paulo 6978

Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., dlvd. dms. t.c.l. same basis lb. .14 - —
tanks, same basis lb. .15½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd gal. .58 - —
dms. t.c.l., dlvd. gal. .68 - —
tanks, dlvd gal. .42 - —
Isopropyl alcohol refd. 95%, c.l., dms. dlvd gal. .60 - —
dms. t.c.l. dlvd gal. .70 - —
tanks dlvd gal. .44 - —
Isopropyl alcohol, anhyd., c.l., dlvd. dms t.c.l. dlvd. gal. .62 - —
tanks dlvd gal. .72 - —
Isopropyl benzene (see Cumene)
Isopropyl ether dms. c.l. dlvd lb 09½- —
dms t.c.l dlvd lb 11 —
tanks dlvd lb 07 —
Isopropyl N (3-chlorophenyl) carbamate (CIPC) tech. dms., c.l. t.l. works lb 1.00 —
dms. t.c.l. works lb 1.05 1.25
tanks works lb .99 —
Isopropylamine (see Mono Di, or Tri-)
Isopropyl-N-phenyl carbamate 450-lb fib dms c.l., t.l., works lb 75 —
450-lb fib dms t.c.l., works lb 80 .90
Isoquinoline dms. works lb 65 1.25
Itaconic acid refd bgs c.l. f.o.b. works lb. .39½- —
bgs., t.c.l., same basis lb. .41 - .43
Tech. bgs. c.l., same basis lb .34½ —
bgs., 500-lbs. same basis lb. .36 - —

J

J acid paste bbls. works, 100% basis lb 2.70 —
Powd. bbls. same basis lb 2.75 —
Jalap root, NF, bls lb .55 .60
NF, powd., bbls., bxs lb .65 .70
Japan wax cs lb 29 .31
Juniper berries bgs. lb 16 17
Juniper berry oil NF bots. lb 2.90 3.75
Twice rectified, bots. lb 3.25 —
Juniper tar oil NF dms lb 42 .60
Juniper wood oil tech cns. lb .38 .55

K

Kaolin (see also Clay, China).
Kaolin NF powd. fib dms lb .10 .12
NF colloidal 50-lb bgs lb 15½ 17½
Karaya gum No. 1, NF powd., bls lb 48 50
No. 2, powd. bbls lb 43 45
No. 3, powd. bbls lb .37 40
Koch acid bbls. frt. alld., 100% basis lb 1.00 —
Kola nuts, bgs lb .11 .12

L

L acid bbls., works lb 1.25 —
Lacquer diluent petroleum, 140°F. 200°F b.r., tankcars, New Jersey and New York gal .20 —
Group 3 gal. 15125- —
Houston, Texas gal 16 —
200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 —
Group 3 gal 14125- —
Houston, Texas gal 16 —
Lactic acid, edible 50%, bbls. dms., c.l., frt. equald lb. 1985- —
bbls. dms., 20 or more, frt. equald lb. 2035- —
bbls. dms. 5 to 19, frt. equald. lb. 2085- —
bbls. dms. 1 to 4 frt equald. lb 2135- —
80%, bbls., c.l., dms., frt. equald. lb. .3335- —
bbls. dms., 20 or more, frt equald lb. 3385- —
bbls., dms., 5 to 19 frt. equald, lb. .3435- —
bbls. dms. 1 to 4 frt equald lb 3485- —
Plastic grade, 50%, c.l., bbls., works lb 2740- —
bbls. 20 or more works lb 2790- —
bbls. 5 to 19 works lb 2840- —
bbls., 1 to 4, works lb. .2890- —
80% bbls., c.l., works lb 4725- —
bbls 5 to 19 works lb 4725- —
bbls 1 to 4 works lb 4775- —
Tech., 44%, bbls., c.l., works. 100 lbs. 12.45 - —
bbls t.c.l., works 100 lbs 12 85 —
USP 85% chys lb 85 —
Lactose, crystalline edible, bgs., 23,000-lb lots, frt equald lb 14 —
bgs 6,000 lb lots, frt equald lb 14½ —
bgs 2,000 lb lots frt equald lb 14¾ —
bgs, 200 lb lots, frt equald lb 15¼ —
Edible lactose in fib dms ½c higher
Lactose, ferment grade bgs c.l. works lb. .08¾- —
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib dms 5,000 lb lots, frt equald lb 22¼ —
200-1,880-lb lots, frt. equald lb 22¾ —
USP lactose in bags ½c to 1c lower
Lactose USP spray dried, bgs., t.l., frt equald lb. .18½- —
bgs. t.l.t. frt equald lb 19 19¾
Lady's slipper root, bls lb 3.00 3.50
Lamp black, bgs. c.l. works lb .16 45
Lanolin USP anhyd. 400-lb dms., works lb 24 26
USP, annyd. cosmetic, 400 lb dms works lb 26 30
USP hydrous 400 lb dms. works lb 20 —
Lard, cash, dms., Chicago lb. .12½- —
Larkspur seed bgs lb .55 —
Lauric acid, dms cns. lb 9.75 12.50
Laurent's acid, bbls lb .87 —
Lauric acid, pure, dms lb .30¼- .32¾
bags lb .28¾- .31¼
tanks lb .27¾- —
Lauryl alcohol, bots lb 2.00 2.50
n-Lauryl methacrylate, dms., c.l. works, t.l. works lb 65½ —
dms lb 68 —
Lavandin oil, 22-24%, dms. lb 1.15 —
Abrial, dms. lb 1.20 —
Lavender flowers, medium, bls lb 50 60
Ordinary bls lb 20 25
Select bls lb 90 1.00
Lavender flower oil, USP, French, 35-37% ester, cns lb 1.85 4.00
40-42% ester, cns. lb. 3.50 3.65
Spike, Spanish, cns lb 1.75 2.00
Lead acetate, NF, cryst., gran., powd., bbls lb. .34½- —
White, cryst., bbls. lb. .25½- —
gran., bbls. lb. .26½- —
powd. bbls. lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity frt. alld. on $150 or 1-lb bgs., same basis lb. .30½- —
more lb. .47 —
Lead, blue, basic sulfate, bbls., c.l., shipt point, frt. alld lb. .17 - —
bbls., t.c.l., same basis lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate)
Lead chloride, 400-lb. fib. dms lb. .56 - —
Lead iodide NF, V lars lb 5.82 - —
Lead linoleate, fused, 26.5% Pb. dms. lb .38 - —
Lead metal, prime, pigs, New York. lb. .11 - —
St. Louis lb. .1080- —
Lead monosilicate, bgs., c.l., works, frt equald lb. .1385- —
bgs. t.c.l., same basis lb 1485- —
Lead naphthenate, liq., 16% Pb., dms. dlvd lb. .19½- —
24% Pb. dms., dlvd lb .24¼ —
Solid, 47% Pb., dms dlvd lb .31¾ —
Lead nitrate, tech., cryst., 400-lb. fib. dms lb. .2675- —
Lead orthosilicate, tet. 50-60% PbO, dms. works lb .29¾ .34¼
Lead peroxide tech powd. bbls lb .45 .50
Lead phthalate dibasic dms. works lb 41 —
Lead, red 95% Pb_3O_4, or less, bbls., c.l., works, frt equald. lb. .1375- —
bbls., t.c.l., same basis lb. .1475- —
Lead, red, 97% Pb_3O_4, bbls., c.l., same basis lb. .1395- —
bbls., t.c.l., same basis lb. .1495- —
98% Pb_3O_4, bbls., c.l., same basis lb. .1410- —
bbls., t.c.l., same basis lb. .1510- —
Lead, resinate precip. 23% Pb dms., lb. .49 - —
Lead salicylate normal dms. works lb. .46 —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs. c.l., f.o.b. mfrs point, frt alld lb .20 —
bgs. t.c.l. same basis lb 21 —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate liq. 16% Pb dms lb 17¼ —
24% Pb. dms lb. .21¼ —
Solid 30% Pb. dms lb. 26¾ —
Lead white basic carbonate, bgs., c.l. shipt pt., frt alld lb. .18 —
bgs. t.c.l. same basis lb. .19 —
Lead, white, basic silicate, bgs., c.l., shipt. pt., frt. alld lb. .16½- —
bgs., t.c.l., same basis lb. .17½- —
Lecithin edible tech. bleached, non-ret dms. c.l. works. lb. .14 .15
non-ret dms. t.c.l., same basis lb .15 .16
unbleached, non-ret, dms., c.l., same basis lb. .13 - .14
non-ret dms. t.c.l. same basis lb 14 .15
Lemon bioflavonoid complex, 50 kilos, f.o.b works kilo.14 20 —
Lemon oil USP Calif. cns. dms. lb. 1.80 - 2.50
Messina cns lb 3.25 4.00
Lemongrass oil, cns., dms lb 3.25 4.00
dl-Leucine, dms., 1 kilo, works kilo.50.00 2.50
Levulinic ethyl gran bls lb .13 —
Powd bls lb 15 .16
Whale bls lb .09 10
Lignaloe wood oil, Mexican, cns lb. 2.60 - 2.95
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate)
Lilac oil lb 1,500.00
Lime chemical (quicklime), bulk, c.l. 50,000 lbs works lb ton 14.25 —
Chemical hydrated bgs. c.l. same basis ton 17.25 —
spray bgs. c.l. same basis ton 18.25 —
For New York delivery add $6.29 freight charge
Lime oil, dist., Mexican, dms lb. 5.50 - 6.00
West Indian, dms lb. 5.50 6.00
Expressed, West Indian, dms lb 6.50 7.75
Lime salts (see Calcium)
Lime ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite)
Linalool ex bois de rose oil dms lb 2.45 4.25
Synthetic 98-100% dms. works lb 2.40 2.75
Linalyl acetate ex bois de rose oil 92% dms lb 4.65 4.50
96-98% dms lb 3.25 —
Syn. 98-100% dms. works lb 2.75 —
Lindane 25% formulation to distributors dms frt alld lb 1.35 1.50
99%, tech. to formulators, 250-lb. dms., 5,000 lbs., dlvd lb. 2.13 - —
100-lb dms. 5,000-lbs. dlvd lb 2.15 —
250-lb dms. less than 5,000 lbs dlvd lb 2.18 —
100-lb dms. less than 5,000 lbs dlvd lb 2.20 —
Linden flowers, with leaves bls lb .35 40
Without leaves bls lb 42 45
Linseed meal, expelled 42% bulk Minneapolis, mills ton.59.50 - —
Extracted 34% bulk same basis ton.55.00 - —
Linseed oil, raw, dms. c.l., New York lb. .1670- —
dms., t.c.l., New York lb. .1760- .1810
tanks, f.o.b. Minneapolis lb. .1310- —
tanks, New York lb. .1422- —
tankwagon, New York lb. .1472- —
Boiled linseed oil, .006c. per lb. higher.
Linseed oil acid, dist., dms lb. .2075- —
Water white, dms lb. .2425- —
Litharge comi., powd. bbls., c.l., works, frt. equald lb. .1325- —
bbls., t.c.l., same basis lb. .1425- —
Lithium aluminum hydride lump, dms. works lb 33.00 39.00
Lithium benzoate dms lb 1.65 1.67
Lithium bromide NF, gran. bgs. works frt equald lb 2.60 —
Lithium carbonate, NF, dms. ton lots lb. .58 - —
dms., 1,999 lbs. or less lb .64 - —
Tech., dms. ton lots lb. .57 - —
dms., 1,999 lbs. or less lb .63 - —
Lithium chloride CP annyd. dms. ton lots lb 1.23½- —
Tech anhyd dms. c.l. t.l., dlvd or works frt alld lb .87 —
dms. t.c.l. same basis lb .88 .93
Lithium citrate NF dms. ton lots. lb 1.50 —
Lithium fluoride dms., 20,000-lb. lots, dlvd lb 1.75 - —
bbls., ton lots and more, dlvd lb 1.85 - —
bbls., less ton lots, dlvd lb 1.90 - —
Lithium hydride, powd., dms., 500-lbs lots or more works lb 9.50 —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld lb. .60 - —
dms., t.c.l., frt. alld lb. .64 - —
Lithium manganite, dms. works lb. .95 1.05
Lithium nitrate, tech. dms., 100-lb lots lb. 1.15 1.25
Lithium salicylate, dms. lb 1.60 1.70
Lithium silicate, dms., works lb. 1.10 1.20
Lithium stearate dms. c.l., works. dms. ton lots works lb. 47½- —
dms., less-ton lots, works lb. 48½- —
Lithium sulfate dms. 100-lb. lots. lb 1.15 1.25
Lithium titanate, dms., works lb. 1.15 1.25
Lithol red toner barium, bbls., works lb. 1.03 - —
Lithol-rubine red toner pure, bbls., works lb. 1.65 - —
Resinated, bbls., works lb. 1.47 - —
Lithopone ord. bgs. c.l. dlvd E. lb. .08⅜- —
bgs., t.c.l. dlvd. E lb. .09⅛- —
Titanated (high-strength), bgs., c.l., dlvd lb. .11 —
bgs. t.c.l. dlvd lb. .12 —
Lobelia herb, bls lb. .95 1.10
Lobeline sulfate, bots., 50-oz. lots, works oz.30.00 —
Locust bean gum powd. bgs. lb. .35 .40
Lycododium, cs. lb. 2.50 3.00
l-Lysine monohydrochloride, 25-lb. dms lb 4.95 —

M

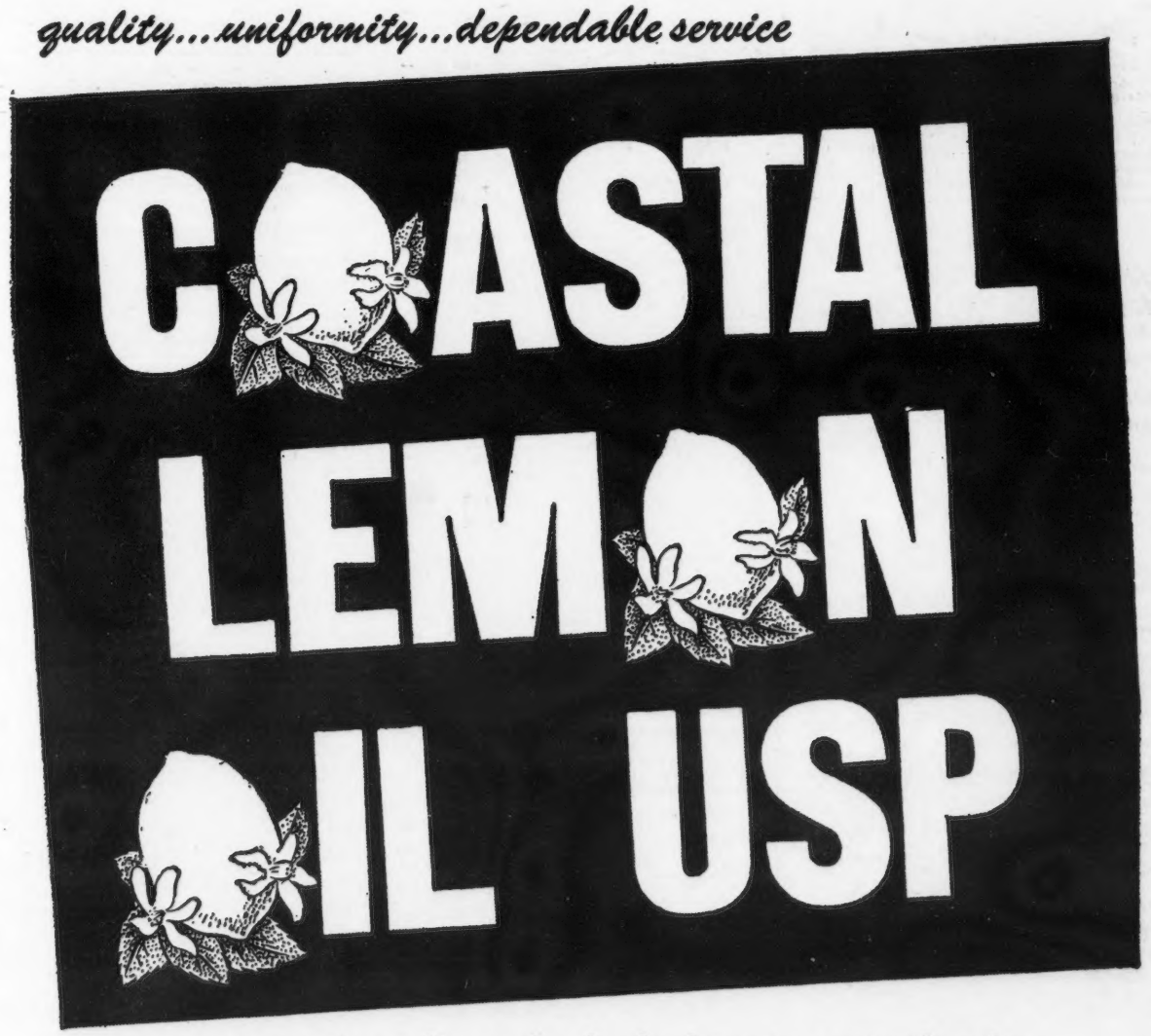
Mace, Siauw, No. 1, bls. lb. 1.58 - —
No. 2, whole, bls. lb 1.40 - —
siftings, bls lb 1.35 - —
Mace oil, dist., cns., dms lb 9.00 11.00
Magnesia calcined, tech. bgs., ctns., frt equald lb. .25¾- .26½
Tech. syn., rubber grade, light, bgs., c.l., frt. equald lb .28¾ .30
rubber grade, extra light, bgs., c.l. frt equald lb. .28 —
bgs. t.c.l., frt equald lb .28¾- —
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points
Magnesia, calcined, tech., heavy, 85% bgs. c.l., f.o.b. Lunning, Nev ton.39.50 - —
91%, bgs. c.l., same basis ton 49.50 - —
95%, bgs., c.l., same basis ton 59.00 - —
USP light, bgs. lb. .36½- .37½
USP, heavy, bgs. lb. .36½- .37½
Magnesite chemical grade, calcined, powd., bgs., c.l., works, frt equald ton.86.25 - —
Magnesite, chemical grade, dead-burnt, standard grain, bulk, c.l., Chawelah, Wash ton.46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b. works lb. 1.15 - —
Magnesium carbonate, tech. bgs., c.l., frt. equald lb .11 - —
bgs., t.l., frt. equald lb. .11½- —
bgs., t.c.l. frt equald lb 13½ 14
USP, bgs., c.l., frt. equald lb. .13½- —
bgs. t.l., frt equald lb .14 —
bgs. t.c.l. frt equald lb .15 16
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.
Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l. works lb. .12¾- —
dms t.c.l. works lb .14 .15
hydrous, 99%, flake, bgs., c.l., works ton.60.00 - —
bgs., t.c.l., works ton.75.00 100.00
Magnesium gluconate 100-lb dm. f.o.b works E lb. 1.42 —
Magnesium hydroxide, NF powd., dms., 500-lbs or more, f.o.b. works lb. .24½- .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld lb. .22½- —
dms., t.l., frt alld lb. .23½- —
tanks, frt alld. lb. .21½- —
Magnesium metal, 99.8%, ingots, 10,000-lb lots or more, works lb .36 - —
Magnesium metal, 98.8%, pigs, 10,000-lb. lots or more, works lb. .35¼- —
sticks, cs., works, frt alld on carlots lb. .59 - —
Magnesium nitrate, cryst., dms., works lb. .29 - —
Magnesium oxide (see Magnesia calcined).
Magnesium phosphate, trihasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc)
Magnesium silicofluoride, dms., works lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works 100 lbs. 2.15 —
bgs. t.c.l., works 100 lbs 2.90 3.15
USP cryst. bgs. c.l. works, 100 lbs 2.35 - —
bgs. t.c.l. 5,000 lbs., 1 with-drawal 100 lbs 3.10 - —
bgs., smaller lots 100 lbs. 3.35 - —
Magnesium trisilicate, USP, fib dms., 5,000-lb. lots lb .38 - —
fib dms. 1,000-lb lots lb .35 - —
fib dms. 100-lb lots lb. 40 - —
Bulky and super grades of magnesium trisilicate 7c per lb. higher.
Malachite green, straight, PTA, bbls., works lb 5.30 - —
Malathion, dms., c.l., works lb .89 - —
dms., t.c.l., works lb .92 1.01
Maleic acid, cryst., powd. dms lb .37¼ —
Maleic anhydride, dms c.l. frt equald lb. .24 - —
dms. t.c.l. frt. equald lb. .25½- —
tanks frt equald lb 22½ —
Maleic anhydride in bags ½c per lb. less.
Malic acid, tech dms lb 50 —
Mandelic acid NF dms., 1,000-lb lots lb 2.35 —
dms, smaller lots lb 2.40 2.50
Mandrake root, bls lb. .45 —
Manganese acetate, dms., dlvd lb .35 —
Manganese borate, tech., fib dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb lots, works lb. .21¾- —
smaller lots, works lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton.148.00 - —
40,000 to 99,999-lb lots, paper bgs., same basis ton.144.50 - —
40,000 to 99,999-lb. lots, dms. same basis ton.152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganese gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophosphite, NF, dms. lb. 3.52 - —
Manganese linoleate, liq. 4.35% Mn, dms lb. .35¾- —
Solid, precip., 8.2% Mn. bbls lb. .41¼ —
Manganese metal, electrolytic, dms., c.l., dlvd, E lb. .34½- —
dms., ton lots, dlvd E lb. .37 - —
dms., smaller lots, dlvd E lb. .39 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .29¾- —
Manganese resinate fused, 3½% Mn dms lb 29¼- —
Precip. 6½ 7% Mn, dms. lb. .42 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$ bgs., c.l., dlvd S. E ton.86.50 - —
bgs. t.c.l., dlvd S., E ton.93.50 - —
Manganese tallate 6%, dms lb .26½- —
Manila copal gum C, bgs lb. .35 .39
DeB, bgs lb. .25 .28
DK, dust bgs. lb. .14 Nom.
MA, soft, bgs lb .20 .24
WS, bgs lb. No stocks.
Mannitol com'l fib dms. ton lots, works lb. .60 —
fib dms. to ton lots, works lb. .62 —
fib dms. single dm. works lb. .65 —
Marine pitch, dms lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works lb. .26½- —
bgs., t.c.l., works lb. .28 —
Menadion, USP bots. gram. .044 .05
Menhaden oil, crude, tanks, works, Atl. & Gulf ports lb. .06½- —
Menthol, nat USP, Brazilian large crystals, cs lb. 8.10 - —
Nat. USP Brazilian, regular crys. cs lb. 8.00 - —
Japanese cs. lb.10.50 12.00
Syn., USP, racemic, 25-lb. lots lb. 4.25 —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots works, frt. alld lb. .44 - —
bgs. fib dms. less ton lots, same basis lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms., ton lots, works, frt. alld lb. .54 - —
bgs. fib dms. less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst. dms., 100 lbs., f.o.b works lb 4.03 - —
USP gran or powd., 50-lb dm., 100 lbs. f.o.b works lb 3.78 - —
Mercuric cyanide, NF VIII powd., fib dms lb 5.84 - —
Mercuric iodide red, NF, 100-lb. dm f.o.b works lb 6.97 - —
Mercuric oxide red NF IX 50-lb dm. 100 lbs. f.o.b works. lb 4.72 - —
tech. 50-lb dm. 100 lbs. same basis lb 4.52 - —
yellow, NF, 50-lb. dm., 100 lbs., same basis lb. 4.89 - —
tech dms. 100 lbs lb 4.35 - —
25-lb fib dm lb 4.38 - —
Mercurous chloride (see Calomel).
Mercurous iodide yellow NF 100-lb. dm f.o.b works lb 8.22 - —
Mercury, ammoniated (see White precipitate USP XV)
Mercury metal flasks per flask net-flask.206.00 209.00
Mesityl oxide dms. c.l., dlvd lb .15 —
dms. t.c.l., dlvd lb 16½- —
tanks dlvd lb 12½- —
Meta aminophenol (see m-Aminophenol)
Metachloraniline (see m-Chloroaniline)
Metanilic acid dms works lb .57 .75
Metanitroparatoluidine (see m-Nitro-toluidine)
Metanitroaniline (see m-Nitroaniline)
Metaphenylenediamine (see m-Phenylenediamine)
Metatoluidine (see m-Toluidine)
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid glacial 98% dms. truckloads frt equald lb .42½- —
dms. smaller lots, frt equald. lb .43 .75
tanks works frt equald lb. .40 —
Methanol, nat, denaturing grade, tanks frt alld gal. .85 - —
Syn. zone 1, dms., c.l., or t.l. min. dlvd gal. .51½- —
dms. t.c.l., dlvd gal. .61½- —
tankwagon, 2,000-4,000 gal. lots, dlvd Metropolitan area gal. .35 - —
tankwagon, 4,000 gal min., dlvd gal. .30 - —
tankwagon, 4,000 gal min., f.o.b terminal gal. .29 - —
Methanol syn., zone 2, dms. c.l., or t.l. min frt alld or dlvd. dms. t.c.l., works gal. .55½- —
tankwagon, 2,000-4,000 gal. lots min., dlvd. Metropolitan area gal. .39 - —
tanks, 4,000 gal. min. dlvd. gal .34 —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprisine Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b works, frt equald lb 21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b works, frt equald lb.27.25 —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue (calcium salt) 90% min., dms. t.l., frt alld lb 1.10 - —
dms., t.l.t., same basis lb 1.16 - —
dl-Methionine, fib dms., frt alld., 50-lb or more lb 3.50 - —
Feed grade, 98% fib dms same basis lb 1.43 - —
Methoxychlor 50% wettable powder dealers, dms. cs lb .66 - —
Methyl abietate, non-ret dms., c.l., dlvd zone 1 lb .21½- —
non-ret dms., t.c.l., same basis lb .22 .22½
Methyl abietate, hydrogenated, non-ret dms., c.l., dlvd zone 1 lb. .23½- —
non-ret dms. t.c.l. same basis, lb 24 .24½

Zone 1 includes New England and Middle Atlantic states, Va., W Va., N C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S C and Tenn

Methyl acetone, nat dms., t.c.l., E of Miss frt alld gal 62½- —
Syn., dms., c.l., frt. alld, E gal. .66 - —
dms., t.c.l., frt. alld, E gal. .76 - —
tanks frt alld E gal .51 —
Synthetic methyl acetone E territory comprises all states East of and including Colo., Mont., N Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l. dlvd. dms., t.l.t., dlvd lb .35½- —
tanks, dlvd. lb. .36¼- —
Methyl alcohol (see Methanol).

Methyl amyl acetate, dms., c.l., dlvd. E	lb.	.17	—
dms., l.c.l., dlvd. E	lb.	.18½	—
tanks, dlvd. E	lb.	.14½	—
Methyl amyl alcohol, dms., c.l., dlvd.	lb.	.17	—
dms., l.c.l., dlvd.	lb.	.18½	—
tanks, dlvd.	lb.	.14½	—
Methyl amyl ketone, dms., c.l., t.l., f.o.b. works	lb.	1.99¼	—
dms., l.c.l., same basis	lb.	2.00	—
N-Methylaniline, tech., tanks, frt. alld	lb.	.60	—
Methylanthranilate, cns.	lb.	2.25	2.45
Methyl benzoate, cns., dms.	lb.	.60	.75
Methyl bromide, service organization prices. 40 to 375-lb. cyls., large lots, frt. alld	lb.	.62	.72
on 100 lbs	lb.	.73	.79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works	lb.	.82	—
50-lb. bgs., 2,000-lb. lots and more, same basis	lb.	.89	—
50-lb bgs., smaller lots, frt. alld on 100 lbs	lb.	1.05	—
Methyl cellulose, standard vis. (15,-400 cps.) 50-lb. bgs., c.l., frt. alld	lb.	.69	—
50-lb. bgs., 2,000-lb lots and more, same basis	lb.	.76	—
50-lb. bgs., smaller lots, frt. alld.			
Methyl chloride indust. cyls., frt. equald	lb.	.22¼	—
tanks, multi-unit, same basis.	lb.	.16¼	—
tanks, single unit, same basis.	lb.	.12¾	—
Methyl chloride, refrigerator mfrs., cyls., dlvd	lb.	.48¾	—
Other consumers or service men, cyls., dlvd	lb.	.67¾	—
Methyl chloroform (see 1,1,1-Trichloroethane).			
Methyl cinnamate, cns	lb.	1.55	1.80
Methyl ethyl ketone, dms., c.l., dlvd	lb.	.15	—
dms., l.c.l., dlvd	lb.	.16½	—
tanks, dlvd.	lb.	.12½	—
2-Methyl-5-ethyl pyridine, dms., c.l., works	lb.	.45	—
dms., l.c.l., works	lb.	.45¾	—
tanks, works	lb.	.43	—
Methyl formate, refd., dms	lb.	.35	.40
Tech., non-ret. dms., any quantity, works	lb.	.10	—
tanks, works	lb.	.07	—
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works	lb.	.26	—
100-lb. multiwall paper bgs., t.l., min. 23,000 lbs., works.	lb.	.27	—
100-lb. multiwall paper bgs., l.t.l., works	lb.	.28	—
Methyl heptin carbonate, bots	lb.	27.25	-29.00
Methyl p-hydroxybenzoate, fib. dms.	lb.	1.90	2.00
Methyl ionone, standard, cns., dms.	lb.	3.40	3.85
Methyl isoamyl ketone, dms., c.l., dlvd	lb.	.20	—
dms., l.c.l., dlvd.	lb.	.20½	—
tanks, dlvd.	lb.	.17½	—
Methyl isobutyl carbinol (see Methyl amyl alcohol).			
Methyl isobutyl ketone, dms., c.l., dlvd	lb.	.17	—
dms., l.c.l., dlvd	lb.	.18½	—
tanks, dlvd	lb.	.14½	—
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va.	lb.	.31	—
dms., smaller lots, same basis	lb.	.31½	—
tanks, same basis	lb.	.29	—
Methyl naphthyl ketone, cryst., cns.	lb.	2.45	4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).			
Methyl parathion, tech., 80%, dms., frt. alld. E	lb.	.84	—
Methyl parathion prices 2c. per lb. higher in West.			
Methyl roseaniline chloride, NF., 5-lb. fib. dms.	lb.	6.90	—
Methyl salicylate, dms., t.l., frt. alld.	lb.	.60¼	—
dms., l.c.l., same basis	lb.	.62½	.67½
Methyl testosterone, USP, 100-gram. bots	gram.	No Prices.	
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works	lb.	1 32	—
5-39 dm. lots, same basis	lb.	1.37	—
tanks, same basis	lb.	1.27	—
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies	lb.	2.95	—
Tungstated, PTMA, bbls., same basis	lb.	4.35	—
Methyl violet prices 1c. higher W. of Rockies.			
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted	lb.	4.67	—
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l., dlvd	lb.	.12½	—
dms., l.c.l., t.l.l., dlvd	lb.	.15¾	—
tanks, 4,000-gal. min., dlvd	lb.	.11¼	—
b-Methylnaphthalene, 32°C., m.p., dms., works	lb.	.90	—
Methylpentanediol (see Hexylene glycol).			
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).			
Methylthionine chloride (see Methylene blue).			
Mica dry-grd., paint, plastic, 100 mesh, bgs., c.l., works	lb.	.04	—
roofing, 20 to 80 mesh, works	lb.	.03	—
wet-grd., biotite, bgs., c.l., works, frt. alld. E	lb.	.06½	—
bgs., l.c.l., ex-whse.	lb.	.07½	—
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E.	lb.	.08¼	—
bgs., l.c.l., ex-whse or freight alld. E	lb.	.09	—
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld. E	lb.	.08	—
bgs., l.c.l., ex-whse, or frt. alld. E	lb.	.08¾	—
wallpaper, bgs., c.l., works, frt. alld. E	lb.	.08¾	—
bgs., ex-whse or frt. alld. E.	lb.	.09	—
white, 5-10 microns, bgs., c.l., works, frt. alld. E	lb.	.08¼	—
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.			
Microcrystalline wax, petroleum, coating grades, tankcars, works	lb.	.10	.11
laminating grades, tankcars, works	lb.	.11	.12
Mineral black, bgs., works	lb.	.0160	.0673
Mineral oil, white tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy.	gal.	.70	—
non-ret. dms., l.c.l., same basis	gal.	.75	—
tankcars, refy.	gal.	.54	—
65-75 vis., non-ret. dms., c.l., same basis	gal.	.70½	—
non-ret. dms., l.c.l., same basis	gal.	.75½	—
tankcars, refy.	gal.	.54½	—
Mineral oil, white, NF, 80-90% vis., non-ret. dms., c.l., same basis	gal.	.71	—
non-ret. dms., l.c.l., same basis	gal.	.76	—
tankcars, refy.	gal.	.55	—
135-138 vis., non-ret. dms., c.l., same basis	gal.	.77	—
non-ret. dms., l.c.l., same basis	gal.	.82	—
tankcars, refy.	gal.	.61	—
145-155 vis., non-ret. dms., c.l., same basis	gal.	.83	—
non-ret. dms., l.c.l., same basis	gal.	.88	—
tankcars, refy.	gal.	.67	—
USP, 180-190 vis., non-ret. dms., c.l., same basis	gal.	.85	—
non-ret. dms., l.c.l., same basis	gal.	.90	—
tankcars, same basis	gal.	.69	—
200-210 vis., non-ret. dms., c.l., f.o.b. refy	gal.	.875	.90
non-ret. dms., l.c.l., same basis	gal.	.925	—
tankcars, refy.	gal.	.69	.715
340-350 vis., non-ret. dms., c.l., f.o.b. refy	gal.	.92½	—
non-ret. dms., l.c.l.	gal.	.97½	—
tankcars, refy.	gal.	.76½	—
(For dlvd. N.Y. prices add 2c. for c.l. and 3c. for l.c.l.).			
Mineral orange, American, bbls., c.l., works	lb.	.16	—
bbls., l.c.l., same basis	lb.	.17	—
Mineral spirits, petroleum, odorless, tankcars, New Jersey	gal.	.29	—
New York	gal.	.305	—
Houston, Texas	gal.	.25	—
regular, tankcars, New Jersey and New York	gal.	.18	—
Group 3	gal.	.12875	—
Houston, Texas	gal.	.145	—
Mineral spirits, 140 F, flash, New York, New Jersey at terminal	gal.	.205	—
Houston, Texas	gal.	.17	—
Mink oil, dms.	lb.	2.75	—
Mirbane oil (see Nitrobenzene).			
MNPT maroon toner, kgs., c.l., works	lo.	6.30	—
Molasses, blackstrap, feed grade, tanks, New Orleans	gal.	.13½	.14
tanks, New York	gal.	.15½	.16
Molybdated orange, bbls.	lb.	.49	—
Molybdenum metal, powd., 80 or 200 mesh, ctns., works	kilo.	7.84	—
325 mesh, ctns., works	kilo.	9.13	—
Molybdenum trioxide, purif., dms., works	lb.	1.15	—
Tech., chemical, dms., works, basis Mo content	lb.	1.48	—
Tech., metallurgical, dms., works, basis Mo. content	lb.	1.47	—
Molybdic acid, 84%, dms., works.	lb.	1.05	1.15
Monoallylamine, dms., c.l., dlvd	lb.	.965	—
dms., c.l., dlvd.	lb.	.995	—
tanks, dlvd.	lb.	.96	—
Monobutylamine, dms., c.l., dlvd. E. of Rockies	lb.	.57½	—
dms., l.c.l., same basis	lb.	.59	—
tanks, same basis	lb.	.55	—
Mono-tert-butyl-m-cresol, dms., c.l., works	lb.	.55	—
dms., l.c.l., works	lb.	.56	—
tanks, works	lb.	.54	—
Monochloracetic acid, purif. (see Chloroacetic acid, mono).			
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E	lb.	.10½	—
dms., l.c.l., same basis	lb.	.11½	—
tanks, same basis	lb.	.08¾	—
Monochlorobenzene prices in the West 1¾c. higher.			
Monoethanolamine, dms., c.l., dlvd. E	lb.	.27½	—
dms., l.c.l., same basis	lb.	.29	—
tanks, same basis	lb.	.25	—
Monoetnylalphanaphthylamine (see n-Ethyl-a-naphthylamine).			
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E. 100% basis	lb.	.38½	—
dms., l.c.l., dlvd. E., 100% basis.	lb.	.40	—
tanks, dlvd. E., 100% basis	lb.	.35	—
Monoethylaniline (see N-Ethylaniline).			
Monoethylorthotoluidine (see N-Ethyl-o-toluidine)			
Monoisopropanolamine, dms., c.l., dlvd. E	lb.	.27½	—
dms., l.c.l., same basis	lb.	.29	—
tanks, same basis	lb.	.25	—
Monoisopropylamine, anhyd., dms., c.l., dlvd	lb.	.33½	—
dms., l.c.l., same basis	lb.	.35	—
tanks, same basis	lb.	.31	—

quality...uniformity...dependable service



PURE California cold pressed lemon oil produced under continuous scientific quality control . . . bulk blended for uniformity, from desert and coastal grown lemons . . . packaged in tamper-proof containers for your protection . . . and priced to save you money. Our research and laboratory facilities have helped many users with product improvement and cost reduction...perhaps we can help you.

VENTURA PROCESSORS, Ventura, California

DISTRIBUTED BY:

International Flavors & Fragrances, Incorporated
417 Rosehill Place, Elizabeth 2, New Jersey

Ventura Processors, 2325 Vista Del Mar Drive, Ventura, California

Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis	lb.	.30 -	—
tanks, 100% basis	lb.	26 -	—
30-35% soln., dms., c.l., frt. equald. 100% basis	lb.	.36 -	—
Monomethylamine, 30-35% soln., dms., l.c.l., frt equald, 100% basis	lb.	.36½-	—
tanks frt equald. 100% basis	lb.	.26 -	—
40% soln. dms. frt equald. 100% basis	lb.	.33 -	—
dms. l.c.l. frt equald 100% basis	lb.	.33½-	—
tanks frt equald 100% basis	lb.	26 -	—
Monopentaerythritol, tech., bgs., c.l., dlvd E	lb	.31 -	—
bgs. l.c.l., dlvd E	lb	.32 -	—
Monopotassium glutamate, dms., 1,000 lb lots frt alld	lb	3.05 -	—
dms 100 lb lots same basis	lb	3.25 -	—
Monosodium glutamate dms. dlvd	lb	1.07	1.15
Monosodium phosphate (see sodium phosphate monobasic)			
Montan wax Calif refd bgs	lb	27	.28
Imp., crude, Bohemian, bgs	lb.	.25	.26
German bgs	lb	.25	.26
Morphine, cns. 100-oz. f.o.b works	oz	12.35 -	—
Morphine hydrobromide, cns., 100-oz., f.o.b works oz		9.90 -	—
Morphine hydrochloride, NF, cns., 100-oz., f.o.b works oz		9.90 -	—
Morphine sulfate, USP, cns., 100-oz., f.o.b works oz		9.90	—
Morpholine, dms., c.l., dlvd E	lb	55¼-	—
dms., l.c.l., dlvd, E	lb.	.56¾-	—
tanks, dlvd E	lb	52¾-	—
Muriatic acid (see Hydrochloric acid).			
Musk, syn. ambrette, fib dms., 100-lb lots	lb	4.40	4.90
cns. 25-lb lots	lb	4.50	5.00
Ketone fib. dms., 100-lb lots	lb	4.60	5.10
cns. 25-lb lots	lb	4.70	5.20
Xylol, fib. dms., 100-lb lots	lb	1.26	—
cns. 25-lb lots	lb	1.40	—
Mustard seed Danish, yellow, bgs.	lb.	.10 -	—
Montana, yellow, bgs	lb.	.10½-	—
Oriental, bgs.	lb.	.09 -	—
Mustard oil, syn., bots.	lb.	1.60	1.85
Myristic acid, bgs.	lb.	.23¼-	.25⅝
tanks	lb.	.22¼-	—
Myrrh gum, cs.	lb.	.65	.75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).			
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).			
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York	gal.	.19 -	—
Group 3	gal.	.13875-	—
Houston, Texas	gal.	.155	—
Naphthalene, crude, dom., 78°, tanks, frt. equald	lb.	.06¼-	.06½
Refd., indust., chipped, crushed, bgs., frt. equald	lb.	.14½-	—
tanks, same basis	lb.	.11¾-	—
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers bbls., c.l. same basis.	lb.	.15½-	—
cs. 50 lbs. c.l. same basis.	lb.	.15¾-	—
1-lb pkgs. c.l. same basis.	lb.	.18½-	—
a-Naphthol, dms. frt. alld	lb	1.02 -	—
b-Naphthol, tech. flake bbls., c.l., works	lb	.34 -	—
bbls. l.c.l. works	lb	.36 -	—
Naphthol, ITR, red toner, bbls., works	lb	5.00 -	—
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid)			
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid)			
1-Naphthol-5-sulfonic acid (see L acid)			
1-Naphthol-5-sulfonic 8-amino acid (see S acid).			
2-Naphthol-6,8-disulfonic acid (see Gamma acid).			
Naphthol sulfonic mixed acid (see Cleve's acid)			
a-Naphthylamine, dms. frt. alld	lb.	.52 -	—
b-Naphthylamine tech. flake, bbls., works	lb.	1.60 -	—
1-Naphthylamine-5-sulfonic acid (see Laurent's acid)			
2-Naphthylamine-4,8-disulfonic acid (see Casella acid)			
2-Naphthylamine-1-sulfonic acid (see Tobias acid)			
2-Naphthylamine-6-sulfonic acid (see Broenner's acid)			
2-Naphthylamine-7-sulfonic acid (see F acid)			
Naringin, fib dms	lb.	8.50	—
Neatsfoot oil, 15° cold test, dms	lb	29	Nom
20° cold test dms	lb	28	Nom.
30° cold test, dms	lb	.27	Nom.
Neocinchophen USP dms., frt, adjusted	lb	7.00	8.00
Neomycin sulfate fib dms. 1-kilo basis activity	gram.	.25	—
fib dms. 100-999-gram lots, basis activity	gram.	.30	—
Tech. fib dms	gram	13½-	—
Neopentylglycol dms., c.l., dlvd	lb	.32	—
dms. l.c.l. same basis	lb	.33	—
Nerol, dms	lb	4.75	—
Neroli oil, NF, French, bots	lb	425.00	575.00
Tunisian, bots.	lb	400.00	—
Nerolin, cns	lb	2.45	2.85
Neville and Winther's acid, dms., frt, alld	lb.	1.50 -	—
Niacinamide (see Nicotinamide)			
Nickel acetate bbls, dlvd	lb.	.68½	75½
Nickel carbonate bbls, dlvd	lb	78¼	85¼
Nickel chloride bbls, dlvd	lb	.37	45
Nickel formate bbls, ton lots, frt. alld	lb	72	73
Nickel metal electro cathodes cs., works	lb	74	—
Nickel nitrate dms, frt alld	lb	31½-	.33½
Nickel oxide, black, bbls	lb	85	—
Green, bbls	lb	84	—
Nickel sulfate, bgs., c.l., dlvd	lb	28	—
bgs., l.c.l., dlvd	lb	28½-	.36
Nicotinamide, USP, 50-kilo, dms., 100 kilos., dlvd	kilo.	5.75	6.50
dms. less than 100 kilos dlvd	kilo.	6.25	7.00
Nicotinamide hydrochloride 50 kilo dms., dlvd	kilo.	6.50	7.50
Nicotine sulfate 40%, dealers, 50-lb dms frt alld	lb	1.20	—
40% manufacturers, 500-lb. dms., frt alld	lb	1.05 -	—
Nicotinic amide USP (see Nicotinamide)			
Niger seed, bgs	lb	10¼-	—
Nikethamide, cbys.	lb	5.00	—
Nitric acid, 36° Be., cbys., c.l., works E 100 lbs		5.75 -	—
cbys., l.c.l., works E 100 lbs		6.05	6.85
38° Be., cbys. c.l., works E 100 lbs		6.25	—
cbys., l.c.l., works E 100 lbs		6.55	7.35
40° Be., cbys., c.l., works E 100 lbs.		6.75 -	—
cbys., l.c.l., works E 100 lbs		7.05	7.85
42° Be., cbys., c.l. works E. 100 lbs		7.25	—
cbys., l.c.l., works E 100 lbs		7.55	8.35
58.5 to 68%, HNO_3, tanks, works, 100% basis 100 lbs.		3.90 -	—
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs		4.90 -	—
Nitric acid CP, NF consumer, cbys., extra, c.l., works	lb.	.18½-	—
cbys extra l.c.l works.	lb.	.20	—
5-pint bots. extra cs. c.l. same basis	lb.	22½-	—
5-pint bots. extra cs l.c.l., same basis	lb.	.24	.25
dms. frt alld	lb.	.99	—
4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works	lb.	.64 -	—
m-Nitroaniline, cryst., dms., frt alld	lb	1.15 -	—
Paste, dms., frt. alld., 100% basis.		1.10 -	—
o-Nitroaniline, flaked, dms. t.l., frt. alld	lb	.49 -	—
dms., t.l., frt alld	lb	.51 -	—
o-Nitroaniline orange toner kgs.		1.50 -	—
p-Nitroaniline c.l., t.l., dms., 20,000 lb min., dlvd	lb.	.44½-	—
dms. l.c.l., same basis	lb.	.46½	—
o-Nitroanisole tech. tanks frt alld.	lb.	.36 -	—
p-Nitroanisole, tech., solid, dms., frt alld	lb.	.72 -	—
Nitrobenzene, dbl dist., dms., c.l., frt alld	lb.	.13	—
dms., l.c.l., frt. alld.	lb	.14 -	—
tanks, frt. alld	lb.	.12 -	—
p-Nitrobenzoic acid, dms., c.l., works	lb.	.63 -	—
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works	lb.	.37½-	—
bbls., l.c.l., same basis	lb.	.33½-	.40½
18-20, cps., bbls., c.l., same basis	lb.	.39½	—
bbls., l.c.l., same basis	lb.	.40½-	.42½
250-400, 600-1,000 seconds, bbls., l.c.l. same basis	lb.	.43	.46
Nitrocellulose, spirit soluble 30-35 cps. ¼ ½ seconds, bbls., c.l. same basis	lb.	.43 -	—
bbls., l.c.l., same basis	lb	.44	.46
5-6 cps., 40-60 seconds, bbls., c.l., same basis	lb.	.42 -	—
bbls. l.c.l., same basis	lb	.43	.45
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable			
o-Nitrochlorobenzene dms. c.l., frt. alld	lb	.15 -	—
dms., l.c.l., same basis	lb	.16 -	—
tanks, same basis	lb	.13 -	—
p-Nitrochlorobenzene dms.	lb	.26	.27
2-Nitro p cresol tech. dms., dlvd	lb	.88	—
Nitroethane, dms., c.l., dlvd. E	lb.	.28½-	—
dms., l.c.l., dlvd, E	lb.	.30 -	—
tanks, dlvd E	lb.	.26 -	—
Nitroethane prices West of Rockies are 1c higher			
Nitrogen solutions, direct application, tanks, f.o.b. works	unit-ton.	1.64 -	—
Manufacturing type, same basis.	unit-ton	1.32 -	—
Nitrogen tetroxide, indust., tankcars, f.o.b Hopewell, Va	lb.	.063	—
Cyls, t.l., min 5 tons, same basis	lb	.07½-	—
Cyls, l.c.l. t.l.t. same basis	lb.	.15	—
Nitrogenous process tankage, bulk, works	unit ton	4.50	5.00
Nitrogenous sewage sludge bulk, f.o.b Chicago works.	unit-ton	3.50	—
(The foregoing price is per unit NH_3, plus 50c. per unit a.p.a., bulk, f.o.b producers' works, Chicago.)			
Nitromethane, dms., t.l., dlvd. E	lb.	.26 -	—
dms., l.t.l., dlvd. E	lb.	.27½-	—
Nitromethane prices West of Rockies are 1c higher			
a-Nitronaphthalene, bbls., frt. alld.	lb.	.31 -	—
o-Nitrophenol, dms., works, frt. equald	lb.	.94 -	—
p-Nitrophenol, dms., c.l., frt alld.	lb	45 -	—
dms. l.c.l. frt alld	lb	.47 -	—
1-Nitropropane dms. c.l., frt. alld. E. of Rockies	lb.	.28½-	—
dms., l.c.l., same basis	lb.	.30 -	—
tanks, same basis	lb.	.26 -	—
1-Nitropropane prices West of Rockies are 1c per lb higher.			
2-Nitropropane dms. c.l., frt. alld. E of Rockies	lb	.18½-	—
dms. l.c.l. same basis	lb.	.20 -	—
tanks, same basis	lb.	.16 -	—
m-Nitrotoluene tech. dms. frt. alld.	lb	50 -	—
o-Nitrotoluene dms. c.l., frt. alld	lb	.15 -	—
dms. l.c.l. frt alld	lb	16 -	—
tanks frt alld	lb	13 -	—
p-Nitrotoluene, tech., cast, dms., c.l., works	lb.	27½-	—
dms. l.c.l. works	lb.	28 -	—
flake, dms., c.l., t.l., works	lb	27½-	—
dms. l.c.l. works	lb	28 -	—
m-Nitro-p-toluidine dms.	lb	1.25	—
Nonylphenol, dms. c.l. frt. alld	lb	.22½-	—
dms., l.c.l. frt. alld	lb.	.23½-	—
tanks, frt. alld	lb.	.20	—
Nonylphenol prices on shipments to Western States are 2c higher			
Noscapine, cns.	oz.	8.00 -	—
Nutmegs East Indian, whole, bgs	lb.	1.18 -	—
West Indian, bgs	lb.	1.20 -	—
Nutmeg oil USP dist., East Indian, cns	lb	9.00	12.00
West Indian, cns.	lb	9.00	12.00
Nux vomica, bls.	lb	.20	—
Powd. bbls., bxs.	lb.	.20	.22

O

Ocher (see Iron oxide, yellow, nat.)			
Ocotea cymbarum oil, dms.	lb.	.45 -	.47
Octane, indust., tanks, Bayonne, N.J	gal.	.20	—
1-Octanol, tech., dms. c.l., dlvd., Zone 1	lb.	43½-	—
dms., l.c.l., dlvd, Zone 1	lb.	.45½-	—
tanks, dlvd., Zone 1	lb.	.41 -	—
Octyl alcohol, perfumers grade, bots.	lb	1.60	3.25
Octyl alcohol, tech, (see 1-Octanol, tech).			
tert-Octylamine, dms., c.l., t.l., f.o.b. works	lb.	.54½-	—
dms., t.c.l., same basis	lb.	.55 -	—
Octylphenol, bgs., c.l., works	lb.	.22½-	—
bgs., l.c.l., works	lb.	.23 -	—
tanks, works	lb	.21½-	—
Octylphenol in dms., 11c. higher.			

OILS

Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms	lb.	.15½-	.16
tanks	lb.	.14¼-	—
Oleic acid, dbl.-dist. (white), dms.	lb.	.19¾-	.22¼
tanks	lb.	.17¼-	—
S. D., dms	lb.	.18¾-	.21¼
tanks	lb.	.16¼-	—
Oleum (see Sulfuric acid, fuming).			
Olibanum gum, siftings, cs	lb.	.15	.20
Tears, cs	lb	22	.30
Olibanum oil, bots	lb	5.00	7.65
Extra fine, bots	lb	8.00	9.50
Olive oil, edible, dms., spot, duty paid	gal.	2.30	- 2.40
Olivine, crude, works	ton	12.00	—
20 mesh, works	ton.	15.00	—
100 mesh works	ton.	20.00	—
Opium, USP, cns., 25-lbs., f.o.b. works	oz.	19.20	—
gran., cns., 50 lbs. same basis.	oz.	21.65	—
powd. cns. 50 lbs. same basis.	oz.	21.65	—
Orange oil, expressed, USP, Calif., cns. dms	lb.	.70 -	.90
Calif., sweet, cns. dms	lb.	.60 -	—
Florida, cns., dms	lb	.70	45
Messina cns	lb.	3.25	5.00
West Indian, bitter, cns., dms	lb.	2.50 -	3.50
Orange peel, bitter, Haitian, bls	lb.	.18	.20
Sweet	lb.	.28	.30

ORANGE PIGMENTS

Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns	lb	1.80	2.30
Orris root, Florentine, bls	lb	.55 -	—
powd., bbls., bxs	lb.	.65 -	—
Verona, bls	lb.	.35 -	—
powd. bbls., bxs	lb.	.45 -	—
Orthoanisidine (see o-Anisidine).			
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).			
Orthochloroaniline (see o-Chloroaniline).			
Orthochlorobenzoic acid (see o-Chlorobenzoic acid)			
Orthochloroparanitroaniline (see 2-Chloro-4-nitro aniline).			
Orthochlorophenol (see o-Chlorophenol).			
Orthocresol (see o-Cresol)			
Orthocresotinic acid (see 2,3-Creosotic acid).			
Orthodichlorobenzene (see o-Dichlorobenzene).			
Orthonitroaniline (see o-Nitroaniline).			
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).			
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol)			
Orthonitrophenol (see o-Nitrophenol).			
Orthonitrotoluene (see o-Nitrotoluene).			
Orthophenetidine (see o-Phenetidine)			
Orthophenylphenol (see o-Phenyl phenol).			
Ortho-tertiary amylphenol (see o-tert-Amylphenol)			
Orthotolidine (see o-Tolidine base)			
Orthotoluidine (see o-Toluidine)			
Ouabain, USP bots.	gram	3.00	4.00
Ouricury wax, crude, bgs	lb.	.50	Nom.
Refd., pure, bgs	lb.	.54 -	.55
Oxalic acid, bgs., c.l., works	lb.	.18	—
bgs., 10,000-lb. lots, works	lb.	.19 -	—
bgs., smaller lots, works	lb.	.20½-	—
Oxalic acid in drums is priced ½c. per lb higher.			
o-Oxynaphthoic acid, pigment manufacture, dms., frt alld	lb.	.912 -	—
Dyestuff manufacture, dms., same basis	lb	1.03	1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works	lb	4.75	5.00
cns., smaller lots, works	lb.	4.92	5.17

P

Palm oil, clarif., dms	lb.	.14¾-	.15¾
tanks	lb.	.12 -	—
Palm oil acid, double dist. dms.	lb.	.16 -	.18½
tanks	lb.	.13½-	—
single dist., dms	lb.	.15½-	.18
tanks	lb.	.13 -	—
Palmarosa oil, cns	lb.	4.90	6.00
Papain, powd., bots.	lb.	3.25	-10.00
Papaverine hydrochloride, nat. or syn., USP cns., 25-oz. to 100-oz. lots	oz.	5.00	—
cns., smaller lots	oz.	5.05	5.20
Papaverine sulfate, nat. or syn., USP, cns	oz	7.10	7.35
Paprika, Bulgarian, bgs	lb.	.32 -	—
Hungarian, bgs.	lb.	.33 -	—
Spanish, bgs	lb.	.30 -	—
Yugoslavian, bgs.	lb.	.38 -	—
Para-aminobenzoic acid (see p-Aminobenzoic acid)			
Parachlorobenzoic acid (see p-Chlorobenzoic acid)			
Paramethylphenylcinchonic acid (see Neocinchophen).			
Paranitrobenzoic acid (see p-Nitrobenzoic acid).			
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).			
Para-aminophenol (see p-Aminophenol).			
Parachlorophenol (see p-Chlorophenol).			
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).			
Para-anisidin (see p-Anisidine)			
Parachloraniline (see p-Chloraniline).			
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).			
Paracresol (see p-Cresol)			
Paradibromobenzene (see p-Dibromobenzene).			
Paradichlorobenzene (see p-Dichlorobenzene).			
Para toner, red, bbls	lb.	1.30 -	—
Chlorinated, kgs.	lb.	1.41 -	—
Paraffin, crude, scale, white, 123°-127°F., ASTM tanks, refy.	lb.	.0655-	.0660
fully refd., 122°-124°F., ASTM, refy.	lb.	.0765-	—
125°-127°F., ASTM, tanks, refy.	lb.	.0765-	—
130°-132°F., ASTM, tanks, refy.	lb.	.0765-	—
132°-134° F., ASTM, tanks, refy.	lb.	.0765-	—
135°-137°F., ASTM, tanks, refy	lb.	.0765-	—
AMP temperatures are an arbitrary 3°F higher than ASTM			
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy	gal.	.14 -	—
Paraffin wax (see Paraffin)			
Paraformaldehyde 91% flake, bgs., c.l., frt alld	lb.	.10 -	—
bgs. l.c.l., frt alld	lb.	.12	.13
91%, powd., bgs., c.l., ex whse.	lb.	.1715-	—
bgs. l.c.l. ex whse	lb.	.1865-	—
Paraformaldehyde, USP-X, fib. dms., c.l.	lb.	.19 -	—
fib dms., 1,000-lb lots	lb.	20 -	—
fib dms., smaller lots	lb.	.21½-	—
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd. E	lb.	.14 -	—
55-gal. dms., l.c.l., dlvd. E	lb.	.15½-	—
tanks, dlvd. E	lb.	.11½-	—
Paranitroaniline (see p-Nitroaniline).			
Paranitrochlorobenzene (see p-Nitrochlorobenzene)			
Paranitrotoluene (see p-Nitrotoluene).			
Paranitrophenol (see p-Nitrophenol).			
Paraphenetidine (see p-Phenetidine).			
Paraphenylenediamine (see p-Phenylenediamine).			
Paraphenylphenol (see p-Phenylphenol).			
Para-tertiary-amylphenol (see p-tert-Amylphenol).			
Para-tertiary butylphenol (see p-tert-Butylphenol).			
Parathion ethyl, dms. frt. alld	lb.	.84	—
Parathion prices 2c. per lb higher in West.			
Paratoluenesulfonamide (see p-Toluenesulfonamide).			
Passion flower herb, bls	lb	.35	.40
Patchouli oil, imp., cns.	lb.	5.60	6.50
Peach kernel oil USP (see Apricot kernel oil).			
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd E of Rockies	lb	1.00	—
Peacock blue price 1c higher W of Rockies.			
Peanut meal, old process, 45% bgs. f.o.b. mills	ton.	58.00 -	—
solvent, same basis	ton.	55.00 -	—
Peanut oil crude tanks, f.o.b. mills	lb.	.14¾-	—
Refd., dms.	lb.	.20 -	.20¼
tanks	lb.	.18 -	—
Pectin, dom., NF, citrus, powd., 100 kilos, f.o.b. shipt. pt	kilo	4.52	—
Pelargonic acid, dms., c.l., dlvd. E	lb.	.27½-	—
ton lots, same basis	lb.	.28½-	—
tanks, same basis	lb.	.25 -	—
Penicillin, potassium, cryst., bulk, 1,000,000 units		.018 -	—
Penicillin, procaine, cryst., bulk, 1,000,000 units.		.020 -	—
Pennyroyal oil USP imported, cns.	lb	1.95	2.70
Pentachlorophenol, 50-lb. bgs., c.l., t.l., works, frt. equald	lb.	.21 -	—
bgs., less than ton-lots, same basis.	lb.	.29 -	—
bgs., c.l., t.l., 2,000 lb. minimum, same basis	lb.	.22½-	—
Pentachlorophenol in dms. 1c. higher			
Pentaerythritol tech., bgs., c.l., dlvd	lb.	.31 -	—
bgs. t.c.l., dlvd	lb	.32 -	—
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).			
Pentane indust. tanks, Tex refy.	gal.	.14	—
Pentobarbital, dms., 100 lbs. or more	lb.	6.00	—
Pepper, black, Malabar, bgs	lb.	.47 -	—
Lampong, bgs.	lb.	.47 -	—
Red, Funtuas bgs.	lb.	.32	—
Japanese Hontoka, bgs.	lb	.37½-	—
Santaka, bgs.	lb.	.31½-	—
Sudanese, bgs.	lb.	.36 -	—
White, Muntok, bgs	lb.	.65 -	—
Peppermint leaves, dom., USP, bls., dms	lb.	No stocks.	
imp., USP dms.	lb.	.85	.90
Peppermint oil, nat., dms.	lb.	4.40 -	—
Redist., USP, dms.	lb.	4.65 -	—
Perchloroethylene dms. c.l., or t.l., dlvd	lb.	.13½-	—
dms., t.c.l., dlvd.	lb.	.15¼-	—
tanks, dlvd	lb.	.11¾-	—
tanktruck, 1,000 gal min dlvd	lb	.12¼-	—
Peri acid, dry bbls., frt alld	lb	1.60	—
Paste, bbls. frt alld	lb	1.55	—
Peru balsam, dms	lb	1.15	- 1.50
Persic oil, USP (see Apricot kernel oil).			
Petitgrain oil South American, cns., dms	lb.	2.30	—
Petrolatum, NF, cream, dms., c.l., refy.	lb.	.085	- 08625
dms., l.c.l., dlvd	lb.	.11125-	11250
tanks, refy.	lb.	.0625-	.06375
NF, extra amber, dms., c.l., refy.	lb.	.07625-	—
dms., l.c.l., dlvd	lb.	.1025-	—
tanks, refy.	lb.	.05875-	—
NF, soft yellow, dms., c.l., refy	lb.	.07625-	—
dms., l.c.l., dlvd	lb.	.1025-	—
tanks, refy.	lb.	.05775-	—
USP, lily white, dms., c.l., refy.	lb.	.09125-	.09675
dms., l.c.l., dlvd	lb.	.1175-	.1225
tanks, refy.	lb.	.0 575-	—
USP, snow white, dms., c.l., refy.	lb.	.09625-	—
dms., l.c.l., dlvd	lb.	.1225-	—
tanks, refy.	lb.	.07375-	—
Full tankwagons of petrolatum are ¼c. more per lb. than tankcars.			
Petroleum pitch (see Asphalt, petroleum).			

PETROLEUM PRODUCTS

Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret dms., c.l., works	lb.	.16½-	.18¾
non-ret. dms., t.c.l., works	lb.	.17½-	.19
tanks, works	lb.	.14½-	.17
50-55% sulfuric content, non-ret. dms., c.l., works	lb.	.16 -	—
non-ret. dms., t.c.l., works	lb.	.17 -	—
tanks, works	lb.	.13 -	—
o-Phenetidine dms., c.l., frt. alld. E	lb	.91 -	—
dms. t.c.l., same basis	lb	.93 -	—
p-Phenetidine, dms., c.l., frt. alld.	lb.	1.05 -	—
dms. same basis	lb	1.08 -	—
Phenobarbitol, USP, dms., 100-lbs., frt. alld	lb.	3.25 -	—
Phenobarbital-Sodium (see sodium phenobarbital)			
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld E. of Rockies	lb.	.17¼-	—
non-ret. dms., t.c.l., same basis.	lb.	.18¼-	—
tanks, same basis	lb.	.15¼-	—
Phenol, 82-84% (cresol 16-18%) non-ret. dms., c.l., same basis.	lb.	.17 -	—
non-ret. dms., t.c.l., same basis.	lb.	.18 -	—
tanks, same basis	lb.	.15 -	—
39°C., or above, tar dist., non-ret. dms., c.l., same basis	lb.	.18½-	—
non-ret. dms., t.c.l.	lb.	.19½-	—
tanks, same basis	lb.	.16½-	—
USP, syn., dms., c.l., t.l., frt. alld.	lb.	.19 -	—
dms., t.c.l., same basis	lb.	.21 -	—
tanks, same basis	lb.	.17 -	—
Phenolphthalein, USP or yellow, 250-lb dm., 2,000 lbs., frt. alld	lb.	1.30 -	—
250-lb dm., same basis	lb	1.35 -	—
Phenothiazine drench, fib dms., t.l., dlvd	lb.	.46 -	—
fib. dms., ton lots, dlvd	lb.	.49 -	—
NF., fib. dms., t.l., dlvd	lb.	.45 -	—
fib dms., ton lots, dlvd	lb.	.48 -	—
Phenyl acetate, dms. 100-lb. lots, works	lb	50	—
Phenyl salicylate (see Salol)			
Phenylacetaldehyde, soln., 50% bots	lb	2.15	2.35
100%, bots.	lb	3.80	4.00

Phenylacetic acid, pure, cryst., cns.	lb.	1.25	1.75
dl-Phenylalanine, dms., 1-kilo	kilo.	65.00	—
l-Phenyl-3-carbethoxy pyrazolone-5, fib. dms., 200-lb. lots, dlvd. E	lb.	3.45	—
fib dms., smaller lots, dlvd. E	lb.	3.80	—
N-Phenyldiethanolamine, dms., c.i., dlvd. E.	lb.	.50	—
dms., t.c.l., dlvd. E.	lb.	.51½	—
tanks, dlvd. E.	lb.	.47½	—
m-Phenylenediamine, dms., c.l., t.l., frt. alld.	lb.	1.08	—
t.c.l., t.t.l., same basis	lb.	1.10	—
o-Phenylenediamine, comi, fib. dms., 100 to 1,000 lbs., works.	lb.	1.70	1.80
p-Phenylenediamine, tech., dms, works	lb.	1.55	—
Phenylethanolamine, dms., c.i., works	lb.	.75½	—
dms., t.c.l., same basis	lb.	.76¼	—
Phenylethyl acetate bots.	lb.	1.25	1.40
2-Phenylethyl alcohol, extra, dms.	lb.	1.14	1.50
Standard. dms	lb.	1.10	1.60
b-Phenylethylamine dms., 20,000 lbs. or more, frt. alld.	lb.	1.50	—
dms. smaller lots. frt. alld	lb.	1.70	1.85
Phenylethylphenyl acetate, bots	lb	4.00	4.25
Phenylglyconic acid (see Mendelic acid).			
Phenylhydrazine 97%, 450-lb dms.	lb.	1.45	—
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E.	lb.	1.80	—
fib dms., smaller lots, dlvd. E	lb.	2.10	—
o-Phenylphenol dms., t.c.l., works.	lb.	.48	.50
p-Phenylphenol, bgs., c.l., works	lb.	.38½	—
bgs., t.c.l., works	lb.	.43	—
Philippine copal gum, pale, chips, bgs	lb.	.23½	.27
nubs, bgs.	lb.	.33¼	.37
seeds, bgs.	lb.	.20	Nom.
sorts, bgs.	lb.	.20	.24
Phlorogiucinol, comi., fib. dms., works	lb.	6.40	—
CP, bots., works	lb.	17.75	—
Tech., fib dms. works	lb.	10.45	—
Phloxin red toner (see Eosin red toner)			
Phosgene, ret cyls. works	lb.	15½	—
Phosphate defluorinated (see under D).			
Phosphate rock, Curacao, Atlantic ports New Orleans	ton.	46.50	—
Phosphate rock, Florida, land pebble run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines.	short-ton.	4.989	5.398
68-70%, b.p.l., bulk, c.l., same basis	short-ton.	5.849	5.858
70-72%, b.p.l., bulk, c.l., same basis	short-ton.	6.429	6.438
Phosphate rock, Florida, land pebble, run of mine, washed, dried, unground, 74-75%, b.p.l., bulk, c.l., same basis.	short ton.	7.329	7.338
76-77%, b.p.l., c.l., bulk, same basis	short-ton.	8.219	8.228
Above Florida prices are based on fuel oil at 2.52 per bbl. and labor at $1.64.			
Phosphoric acid, food grade, 75%, cbys. c.l., works, E., frt. equald	100 lbs.	7.00	—
cbys. t.c.l., same basis	100 lbs.	7.25	7.75
tanks, t.w., works	100 lbs.	5.60	—
80% cbys., c.l. frt equald	100 lbs.	7.85	—
cbys., t.c.l., works	100 lbs.	8.10	9.35
tanks, t.w., works	100 lbs.	6.00	—
NF 85%, cbys., c.l., works.	100 lbs.	8.50	—
cbys., t.c.l., works	100 lbs.	8.75	9.00
tanks, t.w., works	100 lbs.	6.65	—
Phosphorus, amorpn., red, dms., t.l., works	lb.	.55	—
dms., smaller lots, works	lb.	.56	.57
white (yellow), solid, dms., c.i., works, frt. equald	lb.	.20	.20½
dms. t.c.l., works, frt. equald	lb.	.21½	—
tanks, works, frt. equald.	lb.	.19	—
Phosphorus oxychloride, dms., c.i., works	lb.	.14	—
dms., t.c.l., works	lb.	.15	—
tanks, works frt. equald	lb.	.12½	—
Phosphorus pentasulfide, powd., dms., c.l., works	lb.	.13½	—
dms. t.c.l., works	lb.	.14½	.15½
Solid, dms., c.l., works	lb.	.11½	—
dms. t.c.l. works	lb.	.12½	.13½
Phosphorus pentoxide, dms., c.l., works.	lb.	.1375	.1475
dms., t.c.l., works	lb.	.1475	.1675
Phosphorus sesquisulfide, dms., cs., c.l., works	lb.	.38	—
dms., t.c.l., works	lb.	.39	.40
Phosphorus trichloride, dms., c.i., works	lb.	.14	—
dms., t.c.l., works	lb.	.15	—
tanks, works	lb.	.12½	—
Phthalic anhydride bgs., c.i., works, frt. equald.	lb.	.20	—
bgs., t.c.l., same basis	lb.	.21	—
tanks, same bsais	lb.	.19½	—
Phthalimide 97-98%, dms., frt. alld	lb.	.85	—
Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies.	lb.	2.90	—
Resinated, bbls., same basis	lb.	2.75	—
Water dispersable, bbls., same basis	lb.	1.52	—
Phthalocyanine blue prices 1c. higher W. of Rockies			
Phthalocyanine green toner, bbls., works	lb.	3.35	—
Resinated, bbls.	lb.	3.00	—
Water dispersable, bbls.	lb.	1.71	—
Phthalocyanine green prices 1c. higher W. of Rockies			
Phthalylsulfacetamide, fib. dms., 1-000-lb. lots or more	lb.	5.00	—
NF fib. dms.	lb.	5.20	—
a-Picoline dms. c.i., works, frt. equald	lb.	.46	.48
dms., t.c.l., works, frt. equald	lb.	.46½	.49
tanks, same basis	lb.	.43	.46
b-Picoline 98% dms., t.l., works.	lb.	1.05	—
dms., t.c.l., same basis	lb.	1.15	—
tanks, same basis	lb.	.95	—
b,g-Picoline 5°C dms., c.l., works.	lb.	.32½	—
dms., t.c.l., works	lb.	.33	—
g-Picoline, dms., t.o.b., works	lb.	1.60	—
tanks, t.l. same basis	lb.	1.50	—
Picric acid, NF bbls.	lb.	.85	—
Tech., bbls.	lb.	.50	—
Pigment green B, kgs	lb.	1.55	—
Pilocarpine hydrochloride, USP, bots	oz.	4.75	5.25
Pilocarpine nitrate, USP, bots., vials.	oz.	4.65	5.15
Pimento, Jamaican, bgs	lb.	.68¾	—
Mexican, bgs	lb.	.56	—
Pimento berry oil, NF, dms.	lb.	3.75	9.25
Pimento leaf oil, crude, cns	lb.	2.50	2.60
Pine oil, dest.-dist., dms., t.c.l. works	lb.	.15	—
dms. t.c.l. ex whse. New York.	lb.	.173	—
Steam-dist., dms., ex whse., New York	lb.	.185	—
dms., dlvd	lb.	.188	—
Pineneedle oil, Siberian (see Abies Siberica oil).			
Pink root, bls.	lb.	2.25	—
Piperazine anhyd., dms., c.i., frt. alld. E.	lb.	1.80	—
dms., t.c.l., frt. alld. E	lb.	1.85	—
Piperazine citrate, 36%, dms., 1,000 lbs. or more, frt. alld	lb.	1.33	—
Piperazine dihydrochloride, 51%, dms., 1,000 lbs or more, frt. alld.	lb.	1.39	—
Piperazine hexahydrate, 44%, dms., 1,000 lbs. or more, frt. alld	lb.	.90	—
dms., 200-900 lbs., frt. alld.	lb.	.93	—
Piperazine phosphate, 42%, dms., 1,000 lbs. or more, frt. alld.	lb.	1.11	—
Piperidine, dist., 98% min., 5 dms. or more, t.c.l., t.t.l., f.o.b. works.	lb.	2.65	—
1-4 dms., same basis	lb.	2.70	—
dms., c.l., t.l., frt. equald.	lb.	2.55	—
Piperonyl butoxide, dms., dlvd. E.	lb.	4.50	5.05

PITCHES

Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Platinum metal, works	oz.	81.00	85.00
Pleurisy root, bls.	lb.	.45	.50
Podophyllum resin, NF, dms.	lb.	12.50	15.50
Poke root, bls.	lb.	.19	.22
Polymyxin, bots., bulk., 50 billion units or more 1,000,000 units.		.52	—
bulk, bots., 25-50 billion units. 1,000,000 units.		.54	—
bulk, bots., 1-25 billion units. 1,000,000 units.		.56	—
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works	lb.	.42	—
dms., 10,000-20,000-lb. lots, works.	lb.	.44	—
dms., smaller lots, works	lb.	.47	.49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works	lb.	.42	—
dms., 10,000-20,000-lb. lots, works	lb.	.44	—
dms., smaller lots, works	lb.	.47	.49
Pontianak copal gum, chips, bgs.	lb.	.23½	.26
Nubs, bgs.	lb.	.38	.44
Poppy seed, Argentine, bgs.	lb.	No stocks.	
Dutch, bgs.	lb.	.14	—
Danish, bgs.	lb.	.14	—
Polish, bgs.	lb.	.13	—
Turkish, bgs.	lb.	.11	—
Potash, caustic, liq., 45% basis, dms., c.l., works	100 lbs.	4.25	—
dms., t.c.l., same basis.	100 lbs.	5.25	—
tanks, same basis	100 lbs.	3.70	—
reg., flake, 88-92%, dms., c.l., same basis	100 lbs.	9.55	—
dms., t.c.l., same basis.	100 lbs.	11.05	—
solid, 88-92% dms., c.l., works.	100 lbs.	9.10	—
dms., t.c.l., works	100 lbs.	10.60	—
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E	lb.	.31	—
Potassium bicarbonate, USP, gran. dms	lb.	.22	—
powd., dms.	lb.	.24	—
Potassium bichromate, gran., bgs., c.l., t.l., works	lb.	.18	—
bgs., t.c.l., works	lb.	.18½	.19¾
Potassium bichromate in dms. ¾c. higher.			
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald	lb.	.37	—
100-lb. bgs., 5,000 lbs., 1 shipt., same basis	lb.	.38	—
100-lb. bgs., smaller lots, same basis	lb.	.40	—
Potassium borohydride, powd., dms., works	lb.	16.00	22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb lots.			
Potassium bromate, 200-lb. dms., c.l., frt. alld	lb.	.49	—
Potassium bromide, USP. gran., bbls., kgs	lb.	.39	.40
Potassium carbonate, dom., NF, gran., bbls., dms	lb.	.22	.24
Dom. tech. powd., bbls., dms	lb.	.21	.22
Dom., calcinated, bgs., c.l. works.	100 lbs.	8.50	—
bgs., t.c.l., same basis	100 lbs.	9.55	—
Dom., hydrated 83-85%, bgs., c.l., works	100 lbs.	7.10	—
bgs., t.c.l., works	100 lbs.	8.15	—
Potassium chlorate, cryst. dms., c.l., works	lb.	.12¼	—
dms., t.c.l., works	lb.	.13½	.14½
Powd., dms., c.l., works	lb.	.12¾	—
dms., t.c.l., works	lb.	.14	.15
works	lb.	.12¼	—
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works	lb.	.16¾	—
NF, gran., 25-lb. metal dms.	lb.	.36	—
NF powd., dms., 2,000 lbs. or more, works	lb.	.17¼	—
Potassium chloride, indust., 99.9% KCL, bulk, c.l., works	ton.	29.00	—
bgs., c.l., works	ton.	34.00	—
99.3% KCL, bulk, c.l., works.	ton.	28.00	—
bgs., c.l., works	lb.	33.00	—
USP, cryst., dms	lb.	.17	—

Whether you're a large or small purchaser of high quality chemicals you can depend on receiving personalized service from PITT-CONSOL. This comfortably-sized, flexible subsidiary of Consolidation Coal Company draws on the parent company's imaginative research and inexhaustible resources . . . adapts to your specific requirements.

For the best deal in service and high quality chemicals — specify PITT-CONSOL.

PITT-CONSOL Chemical Company

191 Doremus Avenue • Newark 5, N. J.

A SUBSIDIARY OF CONSOLIDATION COAL COMPANY

HIGH QUALITY PHENOLS, CRESOLS, CRESYLIC ACIDS • RUBBER CHEMICALS • ARYL MERCAPTANS

Potassium chloride, USP, gran., dms..lb. .21 - .23
USP powd., dms. ..... lb. .24 .26
Potassium chloride agricultural (see Potassium muriate)
Potassium chromate, tech., dms., works lb. .50 - .51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E lb. .43 - —
powd. 250-lb dms., same basis. lb. .46 - —
Potassium cyanide, dms., 20,000-lb. lots or more works lb. .42½- —
dms. 2,000 19,999 lb lots, works. lb. .43 - —
dms., smaller lots, works lb. .44 .44½
Potassium dichromate (see Potassium bichromate).
Potassium ferricyanide, dms., ton lots, works lb. .50 - —
dms. smaller lots works lb. .65 - —
Potassium ferrocyanide, dms., ton lots lb. .24½- —
dms. smaller lots lb. .29 - —
Potassium fluoborate fib dms., c.l., works lb. .30 - —
fib dms., l.c.l. works lb. .31 - —
Potassium fluoride, dms., works lb. .36 - .37
Potassium gluconate, 100-lb dm., f.o.b works E lb. 1.67 - —
Potassium guaiacol sulfonate, NF, dms lb 2.10 2.30
Potassium hydroxide, tech. (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb dms. 1 to 100-dm. lots lb. .33½- .38
Potassium hypophosphite, NF fib. dms.. 1,000-lb. lots lb. 1.38 - —
Potassium iodide, USP cryst., gran., 250-lb. dm., f.o.b. works. lb. 1.55 - —
Potassium manure salt, min. 20% K_2O, bulk, c.l., works, unit-ton. .17 - .1765
Potassium metabisulfite, gran. dms., Powd. dms lb. .16 - —
lb. .27 - —
Potassium muriate, standard, bulk, c.l., works unit-ton. .37½- .39½
bagged 60% minimum K_2O, same basis ton.26.60- .27.80
Gran., bulk, c.l., works unit-ton. .38½- .40½
bagged, 60% minimum K_2O, same basis ton.28.10 -30.10

Inside prices apply to material contracted for prior to July 1, 1960.

Outside prices apply to material contracted for after that date but also for delivery during the current month

Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs.17.00 —
bbls., smaller lots 100 lbs.18.00 -19.00
gran., bgs., 20-ton lots 100 lbs. 9.50 —
bgs. smaller lots 100 lbs.11.00 12.00
powd., bgs., 20-ton lots 100 lbs.10.50 —
bgs. smaller lots 100 lbs.12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm. f.o.b works E lb. .32 - —
Potassium pentaborate, gran., dms., c.l. works ton.219.50 - —
dms., ton lots, ex whse 100 lbs.17.48 - —
dms., smaller lots, ex whse 100 lbs.18.73 - —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works lb. .18½- —
dms. l.c.l., works lb. .19 .20
Potassium permanganate, coml., kgs. works lb. .25 .33
USP dms., works lb. .29 .35
Potassium pyrophosphate, tetrabasic, dms., works lb .1475- 1575
Potassium prussiate red (see Potassium ferrocyanide).
Potassium prussiate yellow (see Potassium ferro-cyanide).
Potassium silicate, electrical grade, 30° Be. 1:2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs 7.25 7.65
tanks, works 100 lbs. 6.15 - —
40.5° Be 1:2.1, dms., c.l., works. 100 lbs. 5.95 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs. 6.70 - —
tanks, works 100 lbs 5.60 - —
glass grade, bgs., c.l., works. 100 lbs.17.30 -18.00
bgs., l.c.l., works .....100 lbs.17.80 - —
Soln., 29° Be. 1:2.5, dms., c.l., works 100 lbs. 4.95 - —
dms., l.c.l., 5-dm. lots or more, works 100 lbs. 5.70 - —
tanks, works 100 lbs 4.60 - —
Potassium silicofluoride, bgs. works. lb. .09½ .10
Potassium silicofluoride in drums, 0.4c per lb higher
Potassium stannate, dms. frt. alld. lb. .810 - .882
Potassium sulfate, min 50% K_2O, agricultural, bulk, c.l., works unit-ton. .70½- .72½

Inside price applies to tonnage contracted for prior to July 1, 1960.

Outside price applies to tonnage contracted for after that date but also for delivery during the current month.

Potassium sulfate, NF VII, cryst., dms. lb. .31 .33
NF VII, gran., 400-lb. dm lb. .18 —
NF VII powd. 400-lb dm lb. .17 - —
Potassium sulfocyanate, NF cryst., (see Potassium thiocyanate)
Potassium thiocyanate, NF, cryst., dms. works lb. .96 .98
Tech. dms. works lb. .77 .79
Potassium titanate, ctns. c.l., works. ctns. 5-ton lots, works lb. .16¼ —
ctns. 1-ton lots or less, works lb. .16½- —
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk works. base price. ton.13.45 - —
bulk, works, July forward ton.14.00 - —
Potassium-sodium tartrate, NF gran or powd., 250-lb dms., c.l., works E lb. 42½- —
250-lb dms. 5,000-lb lots, same basis lb. .43 - —
250-lb dms. same basis lb. .43½- —
Potassium-titanium fluoride, fib. dms.. works lb. .39 .40
Potassium-zirconium flouride, fib. dms. c.l., works lb. .50 —
fib dms. l.c.l. works lb. .52½ .55
Pregnenolone bots gram No prices.
Pregnenolone acetate bots gram No prices.
Procaine hydrochloride USP antibiotic grade dms., 2,000-lb lots, frt alld lb 2.25 - —
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alld lb 2.40 - —
dms. 500 lbs lb 2.45 - —
dms. 100 lbs lb 2.50 - —
Progesterone, USP bots gram No prices.
Pregnenolone acetate, bots....gram. No prices.
Propenyl guaethol, dms. ..... lb.24.30 -27.00
b-Propriolactone, tech., dms., c.l., f.o.b. works lb. .47½- —
dms., l.c.l., l.t.l., same basis lb. .48½- —
tanks, same basis ..... lb. .45 - —
Propionic acid, syn., pure, dms., c.l., dlvd lb. .23¼- —
dms., l.c.l., dlvd. ..... lb. .24¾- —
tanks, dlvd. ..... lb. .20¾- —
n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., l.c.l., dlvd. ..... lb. .15¼- —
tanks, dlvd. ..... lb. .12¼- —
n-Propyl alcohol, dms., c.l., dlvd lb. .14 - .15
dms., l.c.l., dlvd ..... lb. .15½- .16½
tanks, dlvd. ..... lb. .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb lots, works lb. 3.90 4.40
n-Propyl-p-hyroxybenzoate, USP, dms lb. 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more kilo.55.00 —
bots., smaller lots kilo.55.10 -55.30
n-Propylamine, dms., c.l., dlvd lb 1.24 —
dms., l.c.l., same basis lb. 1.255 - —
n-Propylene dichloride, consumers', dms., c.l., dlvd. E lb. .0845- —
dms., l.c.l., same basis lb. .0995- —
tanks, same basis lb. .07 —
Propylene dichloride prices in West 1c. higher, same basis
Propylene glycol, indust., dms., c.l., dlvd. E lb. .15 - —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12½- —
USP dms., c.l., dlvd. E ..... lb. .17 - —
dms. l.c.l., same basis ..... lb. .18¾- —
tanks, same basis lb. .14½- —
Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .18½- —
Propylene oxide dms., c.l., dlvd E. lb. .17 - —
dms., l.c.l., dlvd. E..... lb. .18½- —
tanks, dlvd. E ..... lb. .14½- —
Psyllium seed, black, bgs..... lb. .42 - .45
Blonde bgs. ..... lb. .18 .20
Husks, bgs. ..... lb. .42 .45
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb. .03⅝- .04¼
bgs., smaller lots lb. .03⅞- —
Imp., Italian, silk-screen, coarse, bgs, ton lots lb. .06½- —
fine, bgs. ton lots lb. .04 - —
sun dried, coarse, bgs ton.60.00 —
fine, bgs. ton.60.00 -70.00
Pumpkin seed, bgs lb. .25 .26
Pyrethrins, syn (see Allethrin).
Pyrethrum flowers, fine grd. 0.9% pyrethrins, bgs., ton, works lb. .50 - —
Powd., 1.3% pyrethrins, bgs., ton works lb. .71 - —
Pyrethrum liquid, 20-1 basis (2 grams pyrethrins per 100cc odorless base) dms., works gal. 9.60 9.80
100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal.45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb.11.00 -11.35
purif. 20% dms. works lb.11.00 -11.35
Pyridine, denat. dms. c.l. works and frt. equald gal. 2.77 - —
dms., l.c.l., same basis gal. 2.80 - —
Reid., 2° non-ret. dms., c.l., same basis lb. .75½- —
dms., l.c.l., same basis lb. .76 - .76½
tanks, same basis lb. .71 - —
Potassium persulfate, dms., c.l., works lb. .17½- —
dms. l.c.l. works lb. .18 .21
Pyridoxine hydrochloride, USP 500-gram bots. dms., f.o.b. works kilo.95.00 -100.00
Pyrites, Canadian, 48-50% S, mines, long-ton 4.50 - 5.00
Pyrocatechol (see Catechol)
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid tech. bbls., 100-lbs., f.o.b.. works lb 3.50 - —
Pyrogallol, NF 100-lb dms lb 3.50 - —
Pyroxylin, USP bots lb 9.50 - —

Q

Quassia chips lb. .10 - —
Quicksilver (see Mercury metal)
Quince seed, bgs lb. 1.75 - 2.00
Quinidine sulfate, USP, 1,000-oz. dm oz. .78½- —
Quinine, NF, 1,000-oz. dm. oz. .3750- —
Quinine bisulfate USP 1,000-oz dm. oz. .28 - —
Quinine hydrochloride, 1,000-oz dm. oz. .3650- —
Quinine sulfate USP, 1,000-oz dm. oz. .3150- —
Quinoline dms., c.l., frt. equald. lb. 50¾ —
dms., l.c.l., same basis lb. 51¼- —
tanks, same basis lb. .50 - —

R

R salt paste, dms., c.l., t.l., frt. alld., 100% basis lb. .98 - —
Powd., dms., c.l., t.l., frt. alld, 100% basis lb. 1.08 - —
Rapeseed oil, dms. ..... lb. .19 - .19½
tanks ..... lb. .17½- —
Rare earth oxalate, NF, 45-50% bgs. works lb. 1.15 —
Rauwolfia serpentina root, powd., bbls. dms lb. 1.00 1.20
Red carmine, No 40 (see Carmine).
Red oil (see Oleic acid)

RED PIGMENTS

Red pigment quotations are listed individually For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner

Red precipitate (see Mercuric oxide red)
Red toner, Lake C, alizanine, bbls., works lb 1.30 - —
Reserpine, cryst. bots gram 1.25 - —
Resorcinol, tech. grade, bgs., c.l., works, frt. equald lb. 77½- —
bgs., l.c.l., same basis lb. 78½- —
Resorcinol in dms. 1c. per lb. more.
USP powd., dms. works lb 2.95 - —
Resorcinol monoacetate, NF dms. lb. 2.50 - —
Rhatany root, bgs lb. .14 .16
Rhodamine red toner, molybdated, PMA, kgs. works lb 6.00 —
Rungstated, PTMA works, kgs lb. 6.60 —
Rhodinol, 5-lb cans lb.42.00 -51.00
Synthetic lb.14.00 -16.00
Rhubarb root, India, whole, bgs lb .2b —
powd. bgs lb. .35 - —
Riboflavin USP fib dms., kilo or more, dlvd kilo.36.00 - —
Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more, dlvd. kilo.104.70 - —
Rice bran oil, clarified, dms., l.c.l. tanks, dlvd, E..... lb. .15½- —
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate)
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian, bots lb.1,152.00- —
Turkish, bots., otto..... lb.600.00 -700.00
absolute ..... lb.145.00 - —
Rosemary oil, Spanish, NF, cns., dms lb. .97 1.40
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works unit-lb. .10½- —
Resin, 25-45%, fib dms., works, unit-lb. .10½- —
Rottenstone, bgs., 5-ton lots, ex-whse lb. .03¾- —
bgs., ton lots, same basis lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York, gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas ..... gal. .155 - —
Rue oil, bots. ..... lb. 2.75 3.00
Rutin, NF, fib. dms., 10 kilo lots. kilo.11.00 - —
fib. dms., 5 kilo lots ..... kilo.11.50 - —
fib. dms., 1 kilo ..... kilo.13.00 - —
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis lb. .24 - —

S

S acid, bbls., works ..... lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib. dms., 1,000-lb lots, works lb. 2.50 - —
Saccharin, USP, gran., soluble, dms., 1,000-lb. lots ... lb. 1.50 - —
dms., smaller lots ..... lb. 1.60 - —
USP, powd., soluble, dms., 1,000-lb. lots lb. 1.55 - —
dms., smaller lots lb. 1.65 - —
USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.53 - —
dms., smaller lots lb. 1.63 - —
Safflower oil, dms., New York ... lb. .1815- .1840
tanks, Atl. coast ..... lb. .1620- .1645
Saffron, Mancha Superior, tins lb.19.50 - —
Safrol, dms. ..... lb. .65 - —
Sage, Dalmatian, bgs ..... lb. .40 - —
Greek, cns. ..... lb. .15 - —
Italian, cns. ..... lb. .18 - —
Sage oil, clary, bots ..... lb.12.00 -15.00
Dalmatian, cns ..... lb 2.85 3.25
Spanish, cns ..... lb 1.25 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms c.l., t.l., f.o.b., plant, frt. equald lb 1.23 - —
dms. l.c.l. same basis lb 1.25 - —
Salicylamide, 100-lb dms lb. 1.05 - —
Salicylic acid tech. fib dms., c.l., t.l., dlvd lb. .40½- —
fib dms. l.c.l. dlvd lb. .44¾- —
USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more lb. .51¾- —
200-lb fib dms. less than 1,000 lbs lb. .54¾- —
Cryst., 100-lb. fib. dms., 1,000 lbs. or more lb. .53¾- —
100-lb fib dms. less than 1,000 lbs lb. .56¾- —
Salicylic acid, USP, powd., 100-lb. fib. dms., 1,000 lbs. or more lb. .58¾- —
100-lb fib. dms., less than 1,000 lbs lb. .61¾- —
Salol, NF, gran. bbls. kgs lb 1.20 —
Powdered salol 25c per lb higher.
Salt rock paper bgs. c.l 100 lbs 1.09 - —
Salt, table vacuum common, fine, paper bgs. c.l 100 lbs 1.34 - —
Saltcake, dom. bulk, works, 100% Na_2SO_4 basis ton.28.00 - —
Saltpeter (see Potassium nitrate)
Sandalwood E Indian chips, bgs., powd. fib dms lb. .55 - .66
Sandalwood oil, cns ..... lb 75 76
Sarcosine, tech. tanks, f.o.b., works, frt equald lb 1.03 —
lb No stocks.
Sassafras oil, artif., dms ..... lb. .45 —
Nat., dom. dms ..... lb 1.40 - —
Savory oil, cns ..... lb 4.75 - —
Schaeffer's salt paste, dms., frt. alld. 100% basis lb. .85 - —
Powd. bgs. frt alld. 100% basis, lb. .95 - —
Scopolamine hydrobromide, USP, bots oz.13.00 - —
Sebacic acid, CP bgs., c.l., works, lb. .69½- —
bgs., l.c.l., works lb. .71½- —
Purified, bgs. c.l., works lb. .65½- —
bgs., l.c.l., works lb. .67½- —
Seidlitz mixture fib dms. 5,000-lb. lots lb. .30½- —
fib dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls ..... lb. 3.00 - 3.25
Senna leaves, Alexandria, whole and half, bls lb. .20 - .22
siftings ..... lb. .16 - —
Tinnevelly, No. 1, bls..... lb. .22 - —
No. 2, bls ..... lb. .18 - —
No. 3, bls ..... lb. .14 - —
pods, bls. ..... lb. .28 - —
powd., bbls., bxs ..... lb. .17 - —
Serpentaria root, bls ..... lb. 6.50 - —
Sesame oil, USP, dms., l.c.l ..... lb. .37 - .38
Sesame seed, Colombian, bgs .. lb. .15½- —
Lebanese, hulled, bgs ..... lb. .19 - —
Nicaraguan, hulled, bgs ..... lb. .21 - —
nat., bgs. ..... lb. .15 - —
Salvadorian, Nat. bgs lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .47 - —
dms., l.c.l. works lb .22 - .20½
bbls., 1,500-lb. lots ..... lb. .46 - —
kgs., 1,500-lb. lots ..... lb. .47 - —
Bonedry shellacs prices for less than 1,500-lb lots 1c. per lb. higher for all packages.
Shellac, bleached, refd. bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb. lots lb. .57 - —
kgs., 1,500-lb. lots lb. .58 - —
Shellac, orange, lemon No 1, bgs., 10-bg. lots lb. .37 - .39
lemon No. 2, bgs. 10-bg. lots, lb. .34 .37
superfine, bgs. 10-bg. lots lb. .32 .34
Shellac in 1 to 10-bg lots 1c per lb more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .48 - —
tanks, works gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs., l.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works lb. .07 .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton.25.00 —
bgs. l.c.l. works, ex whse. ton.45.00 -55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l. works ton.20.00 - —
bgs., l.c.l., works ton.25.00 - —
99½%, 140 mesh, bgs., c.l., works ton.15.00 - —
bgs., l.c.l., works ..... ton.20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .20 - —
tanks, works ..... lb. .15 - —
Silver bullion, ingots, cs. Troy oz. .91⅛- —
Silver cyanide, bots., 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots ..... oz. .95¼- —
bots., 100-oz. lots ..... oz. .96¼- —
Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works oz. .67¼- —
bots., 250-500 oz., same basis, oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, 16-oz. bots oz. 1.46 - —
Snakeroot oil, Canada, cns ..... lb.40.00 -43.00
Soapbark, chipped, bls ..... lb. .30 .35
Powd., bls. ..... lb. .35 .40
Whole, bls. ..... lb. .20 .25
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 4.77
bulk, c.l. works 100 lbs. 1.60 - —
Soda ash, light, 58%, paper bgs., c.l., works 100 lbs 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 4.72
bulk, c.l., works 100 lbs 1.55 —
Soda caustic, flake, 76%, dms., c.l., works, frt equald 100 lbs 5.20 - —
liq. 50% sellers tanks works, dry basis 100 lbs 2.90 - —
50% rayon type, sellers tanks, works, dry basis lbs. 2.90 3.00
Soda, caustic, liq, 73%, sellers' tanks works, dry basis, 100 lbs. 3.00 - —
liq., 73% rayon type, sellers' tanks, works, dry basis lb 3.00 3.10
solid, 76% dms., c.l., works, 100 lbs 4.80 - —
Soda sal. conc. bgs. c.l. works 100 lbs. 2.50 - —
bgs. smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E lb. .14½- —
bgs., l.c.l., same basis lb. .16½- —
NF 60% gran. dms. c.l., works, lb. .15½- —
dms., l.c.l., works lb. .17½- —
Sodium alginate, NF, white powd., dom. 300 lbs. or more lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb lots or more, frt. adjusted lb. 1.90 - —
Sodium antimoniate, bgs. c.l. dlvd. E lb. .27½- —
bgs., l.c.l. dlvd. E lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm. less than ton lots, f.o.b. works lb. .24 - —
ton lots or more, same basis, lb. .23½- —
Sodium arsenite, 94% soluble pink powder, 75% arsenious oxide, dealers, 100-lb dms., ton lots or more, f.o.b., works lb. .18½- —
1,600-1,900 dms., same basis lb. .19 - —
100-500 dms., same basis lb. .20 - —
Sodium ascorbate, dms., 100-kilos., dms., f.o.b. works kilo. 6.80 - —
less than 100-kilos kilo 7.05 - —
Sodium benzoate tech., dms., c.l., t.l., frt. alld lb. .35 - —
dms., l.c.l. same basis lb. .39 - —
USP, dms., ton lots, same basis. lb. .43 - —
dms., 1,000-lb lots, same basis. lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.95 - —
bgs. l.c.l. works 100 lbs 3.85 - —
USP powd., bgs. c.l., works, bgs., l.c.l. works 100 lbs. 2.55 - —
100 lbs. 3.45 - —
Sodium bichromate, gran., ngs., c.l., t.l., works lb. .13 - —
bgs., l.c.l., works lb. .13½- .14¾
Sodium bichromate in dms. ¾c. per lb higher
Sodium bifluoride, fib. dms., c.l., works, frt. equald lb. .19½- —
fib. dms., l.c.l., same basis lb. .2025- —
Sodium bisulfate bulk c.l. works, 100 lbs. 2.00 —
dms c.l., frt. equald 100 lbs. 3.00 3.60
dms. l.c.l., frt equald 100 lbs 3.50 4.10
Sodium bisulfite anhyd., bgs., c.l., works 100 lbs 5.00 - —
bgs., l.c.l., works 100 lbs 5.45 - —
Soln., 35° bbls. c.l., works.100 lbs 1.70 - —
bbls. l.c.l works 100 lbs 2.20 - —
Sodium borate (see Borax)
Sodium borohydride powd., dms., c.l., works lb.19.90 —
dms., l.c.l., works lb.33.00 -40.00
stabilized water soln., 12% NaBH, 100% basis, dms., works lb.15.00 - —
Pelletized sodium borohydride $1 per lb higher in 1,000-lb lots.
Sodium bromide USP, gran. dms., works lb. .40 - —
Sodium carbonate, cryst. monohydrated (see Soda sal)
Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs 3.10 - —
bgs., l.c.l. works 100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works lb. .09 —
dms. l.c.l., works lb. .09½- .10¼
Sodium chlorate in 100-lb. dms., only, ¼c. per lb higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran. bgs. lb. .05 - —
Sodium chlorite, tech. dms., c.l., works lb. .58 - —
dms. 20-dm lots or more, works. lb. .66 —
dms., smaller lots, works lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms. l.c.l., works lb. .28 - —
Sodium chromate, anhyd. fib. dms., c.l., t.l., works lb. .14¾- —
fib. dms. l.c.l., works lb. .15¼- .16¼
Sodium chromate tetrahydrate, bgs. c.l. t.l., works lb. .1015- —
bgs., l.c.l. lb. .1065- .1190
Sodium citrate anhyd., 200-lb dm., f.o.b works E lb. .62 - —
NF VIII, gran. bgs., c.l., same basis lb. .26 - —
USP XIV gran. bgs., c.l., same basis lb. .29 —
Sodium citrate, USP powd. prices ½c higher.
Sodium cyanate, dms. 1,000-lb. lots, works lb. .85 —
dms. smaller lots, works lb. .90 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb lots lb. .176 - —
dms., same basis, 5,000 to 19,999-lb lots lb. .188 - —
dms., same basis, 1,000 to 4,900-lb lots lb. .198 - —
Sodium cyclamate, 100-lb dm., f.o.b. works lb. 1.95 - —
Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works lb. .18 —
250-lb dms. c.l., works lb. 18¾- —
Tech. 33-35% acetic acid, dms., l.c.l., works lb. .15 —
250-lb. dms., l.c.l., works ..... lb. .15¾- —

Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., t.l., same basis lb. .47 - .52
tanks, same basis lb. .38 - —

Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs., smaller lots lb. 14½- —

Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1390- —
fib. dms., l.c.l., works, frt. equald lb. .1465- —

Sodium formate, bgs., c.l., works, 100 lbs. 7.05 - —
bgs., l.c.l., ex whse 100 lbs 8.65 - —

Sodium gentisate, 100-lb. fib. dms. lb. 5.50 - —

Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .64 - —
Tech., bgs., c.l., t.l., same basis lb. .34 - —

Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b shipping point. lb. 2.20 - —
dms., 50-99 lbs. same basis lb. 1.77 - —
dms., 100-999 lbs., same basis lb 1.20 - —
dms., 1,000 lbs or more, same basis lb .95 —

Sodium hydrosulfide (see Sodium sulfhydrate).

Sodium hydrosulfite dms. c.l., frt. alld lb. .23½ —
dms., l.c.l. frt. alld. lb. .25½- —

Sodium hydroxide, NF, pellets, 100-lb dms., 1 to 100-dm. lots, lb. .23½- .25

Sodium hydroxide, tech (see Soda, caustic).

Sodium hypophosphite, NF dms. 1,000-lb. lots lb. .99 - —

Sodium hyposulfite (see Sodium thiosulfate).

Sodium iodide, USP, 300-lb. dms., f.o.b. works lb. 2.13 - —

Sodium lauryl sulfate, dms., c.l., dlvd lb. .20½- —
dms., l.t.l., dlvd. lb. .21½- —
tanks, dlvd. lb .19½- —

Sodium lignin sulfonate, bgs., c.l., works 100 lbs 4.25 6.50
l.c.l., bgs., works 100 lbs. 4.40 7.00

Sodium metabisulfite (see Sodium bisulfite).

Sodium metaborate octahydrate, gran. bgs. c.l. works ton 210.00 —
bgs., ton lots, ex whse 100 lbs. 8.30 - —
bgs. smaller lots, ex whse 100 lbs. 9.61 -11.61

Tetrahydrate bgs. c.l., works ton 210.00 —
bgs., ton lots, ex whse 100 lbs. 14.83 - —
bgs. smaller lots, ex whse 100 lbs. 16.08 -18.08

Sodium, metallic, bricks, c.l., works, lb .21 —
Fused, 18,000-lb lots or more, works lb. .19½- —
tanks, works lb. .17 - —

Sodium metalinate, bbls., frt. alld. lb .62 - —

Sodium metaphosphate, bgs., c.l., f.o.b shipping pt 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.85 - —
dms., c.l., same basis 100 lbs. 11.70 - —
dms., l.c.l., same basis 100 lbs. 12.45 - —

Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs 5.70 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs 6.05 - —
dms., c.l., works 100 lbs 6.20 - —
dms., l.c.l., works 100 lbs 6.55 - —

Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs 4.45 - —
bgs., l.c.l., works 100 lbs 4.80 6.75
dms., l.c.l., works 100 lbs 4.95 —
dms., l.c.l., works 100 lbs 5.30 7.25

Sodium molybdate anhyd., dms., works, frt. equald lb .92 .99
Cryst., dms. works frt. alld lb .74 .76

Sodium monoglutamate (see Monosodium glutamate)

Sodium monohydrate (see Sodium carbonate monohydrated)

Sodium naphthionate, bbls. lb. .77 - —

Sodium nitrate, dom., crude, bgs., c.l. works ton 48.00 - —
bulk, c.l., works ton 44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton 48.00 - —
bulk, c.l., same basis ton 44.00 - —

Sodium nitrite, USP, bbls., c.l. works, frt. equald 100 lbs. 9.40 - —
bbls., l.c.l., same basis 100 lbs. 11.40 - —

Sodium orthosilicate conc., dms. c.l., works 100 lbs 6.70 - —
dms., l.c.l., works 100 lbs 7.05 7.65

Hydrated, flake, bbls., c.l., works 100 lbs 5.65 —
bbls., l.c.l., works 100 lbs 7.60 7.90

Sodium oxalate, 88%, bgs., works 100 lbs. 12.35 - —
99% bgs., works 100 lbs. 15.40 - —

Sodium para-aminobenzoate (see Sodium p-aminobenzoate)

Sodium para aminosalicylate (see Sodium p-aminosalicylate)

Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. .26 - —
dms., l.c.l., same basis lb. .27½- .34
Pellets, dms., c.l., same basis lb. .26 - —
dms., c.l., same basis lb. .27½- .34
Powd., dms., c.l. same basis lb. .25 —
dms. l.c.l., same basis lb. .26½- .33

Sodium pentabarbital, USP, dms., 100 lbs. or more lb. 6.00 - —

Sodium perborate NF, tech., bgs., c.l., works lb. .18½- —
bgs. l.c.l. works lb. .19 .21

Sodium peroxide, dms., c.l., t.l., dlvd E. of Miss lb. .21½- —
dms., l.c.l. same basis lb. .22 - .22½

Sodium phenobarbital USP, 100-lb. dms lb. 3.75 - —

Sodium phenosulfonate, USP, LX, gran., dms lb. .52 - .53
NF powd dms lb. .55 .56

Sodium phosphate, dibasic, anhyd., bgs c.l. frt equald 100 lbs. 8.10 - —
bgs., l.c.l., same basis 100 lbs 8.50 9.55

Sodium phosphate, dibasic, cryst., bgs., c.l., t.l., frt equald 100 lbs. 4.75 - —
bgs., l.c.l., frt. equald 100 lbs. 5.15 5.90

Dibasic duohydrate, bgs., c.l. frt equald 100 lbs. 7.75 - —
bgs., l.c.l., same basis 100 lbs. 8.25 - —

Monobasic anhyd bgs. c.l. frt equald 100 lbs. 9.15 - —
bgs., l.c.l., same basis 100 lbs. 9.55 -10.15

Tribasic anhyd. bgs c.l., frt equald 100 lbs. 9.15 - —
bgs. l.c.l. frt. equald 100 lbs. 9.60 -10.20

Sodium phosphate in dms, 60c. to 80c. higher than bgs

Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 - .20½

Sodium picramate, tech., paste, dms., f.o.b works, frt. equald lb. .90 - —

Sodium propionate, any quantity, dms., dlvd E of Rockies. lb. .37 - —
Prices W of Rockies, 3c per lb more.

Sodium prussiate yellow (see Sodium ferrocyanide).

Sodium pyrophosphate, acid, bgs., c.l., works, frt equald. 100 lbs. 11.25 - —
bgs., l.c.l., same basis 100 lbs. 12.00 -12.50

Sodium pyrophosphate, ferric, dms., c.l., t.l., works lb. .36 —
dms., l.c.l. works lb. .37 .39

Tetrahasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 8.30 - —

Sodium salicylate USP dms., 1,000-lbs or more lb. .78½- —
dms. less than 1,000 lbs. dms.lb. .81½- —

Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 —
l.c.l., dlvd. zone 1 100 lbs. 4.10 - 4.35
dlvd zone 2 100 lbs 4.35 4.60
dlvd. zone 3 100 lbs 4.75 4.90
dlvd zone 4 100 lbs 5.35 5.60

Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va. Ala., La. and Miss. south of 31°; Tex E. of 100°; S of 31° Fla.; also Me., N H. and Vt. in which there are special county zones: Davenport, Ia., and St. Louis; (2) Ark E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St Louis) Neb E. of 98° N (., S C., Tenn and Tex N of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No of 31°; (3) Ark. W of 96°, Kan., Neb W. of 98° N D., Okla., S. D., Tex., W of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo and El Paso Tex.

Sodium sesquisilicate, anhyd., bgs., c.l. t.l. works 100 lbs 5.70 - —
dms c.l. t.l., works 100 lbs 6.20 - —

hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs 5.35 - —
dms., c.l., works 100 lbs 5.50 - —
dms. 6,000-19,900 lb lots, works. 100 lbs. 5.85 - —

Sodium silicate, liq., 40° Be., 1:3.2, turbid dms. c.l. works. 100 lbs 1.65 —
dms., l.c.l. works 100 lbs 1.90 2.40
tanks works 100 lbs 1.20 —
47° Be 1:2.9 turbid, dms., c.l., works 100 lbs 2.25 —
dms., l.c.l., works 100 lbs 2.60 3.45
tanks, works 100 lbs 1.90 —
52° Be 1:2.4 turbid, dms., c.l., works 100 lbs 2.65 —
dms., l.c.l., works 100 lbs 3.00 3.50
tanks, works 100 lbs 2.30 —
Solid, 1:3.2, bgs. works ton 67.50 —

Sodium silicofluoride, bgs., c.l., works lb. .063 - —
bgs., l.c.l., works lb .725 —
Sodium silicofluoride in dms., 0.4c. per lb. higher

Sodium stannate dms. works frt. alld. E. lb. .672 - .732

Sodium sulfa drugs (see Sulfa name)

Sodium sulfanilate bbls. works lb. .22 - —

Sodium sulfate NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd. bgs., c.l. dlvd E. ton 56.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton 38.00 - —
bulk, c.l., works ton 34.00 - —
USP cryst. fib dms lb .17½- .18

Sodium sulfhydrate, flake 70-72%, dms., c.l. works, frt. equald lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq. 40-44% tanks, works, 100% basis ton 130.00 - —

Sodium sulfide flake, dms., c.l., works E frt equald lb .06 —
dms. l.c.l., same basis lb .07 —

Fused, bbls. c.l. works E., frt equald lb .05½ —
bbls. l.c.l. same basis lb .06½ —

Sodium sulfite, anhyd., tech., bgs., c.l., works 100 lbs. 3.50 - —
bgs. l.l., same basis 100 lbs 4.00 —

Sodium sulfite anhyd. powd., bgs. c.l., works 100 lbs 7.55 —
bgs. l.c.l. same basis 100 lbs 7.95 —

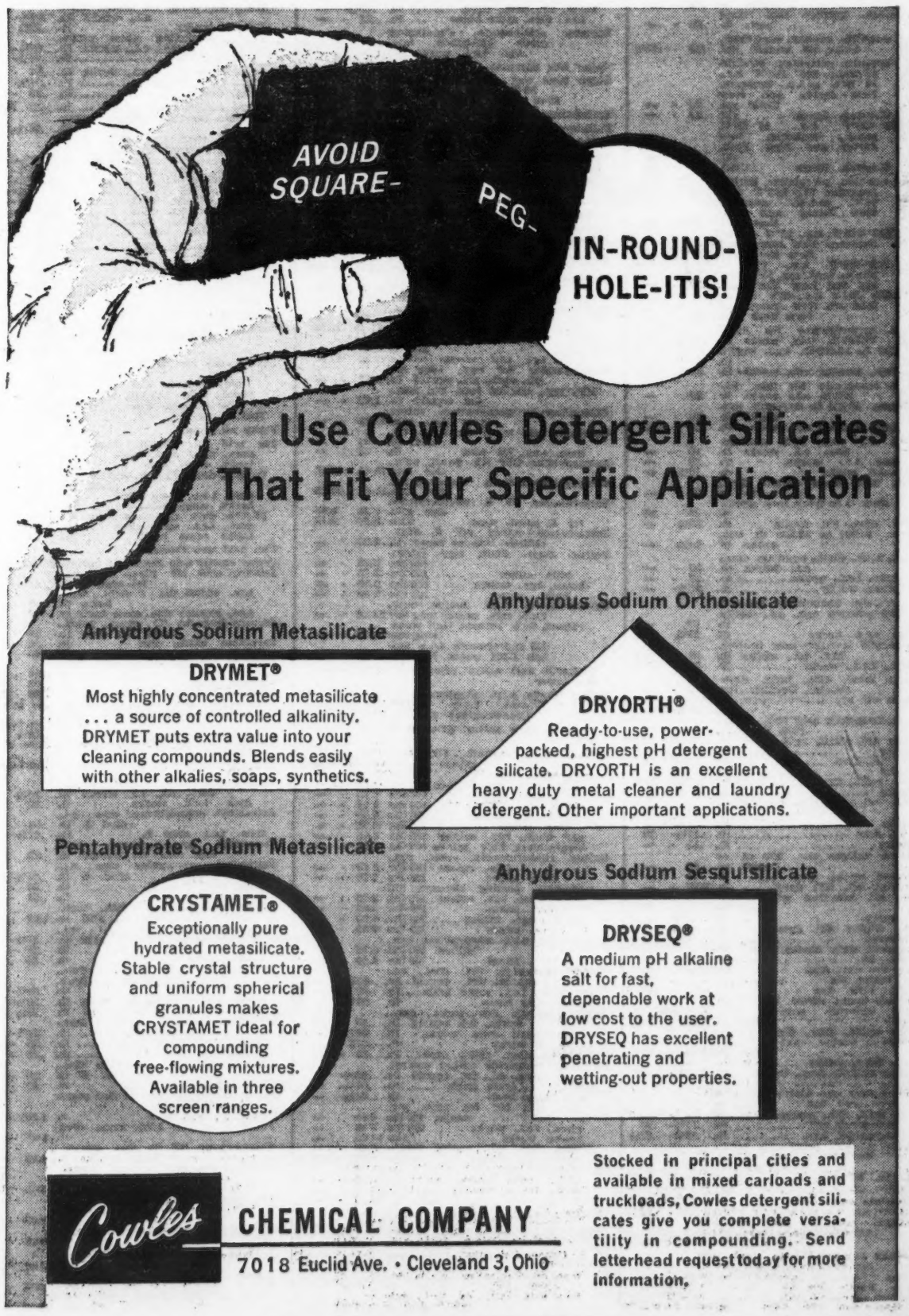
Sodium sulfocyanide CP (see Sodium thiocyanate)

Sodium tetraborate (see Borax).

Sodium tetrasulfide liq. 40%, dms., c.l., works frt equald lb .04½ —
dms., l.c.l same basis lb .05½ —

Sodium thiocyanate, purified, cryst., 250-lb dms lb. .90 - —
Tech. anhyd. dms., 1 ton lots or more, works lb. .357 - —
dms., less than ton lots, works lb. .337 - —

Sodium thiosulfate NF cryst. bbls. lb. .13½ —
Tech. anhyd. 100-lb bgs. c.l., t.l., frt. equald 100 lbs 7.75 - —
100-lb bgs. l.c.l., l.t.l., frt. equald 100 lbs 8.15 - —
photograde, 64-lb. bgs., c.l., t.l., frt. equald lb. .0775- —
64-lb. bgs. l.c.l., l.t.l., frt. equald lb. .0815- —


AVOID SQUARE-
PEG-
IN-ROUND-HOLE-ITIS!
Use Cowles Detergent Silicates That Fit Your Specific Application
Anhydrous Sodium Metasilicate
DRYMET®
Most highly concentrated metasilicate ... a source of controlled alkalinity. DRYMET puts extra value into your cleaning compounds. Blends easily with other alkalies, soaps, synthetics.
Anhydrous Sodium Orthosilicate
DRYORTH®
Ready-to-use, power-packed, highest pH detergent silicate. DRYORTH is an excellent heavy duty metal cleaner and laundry detergent. Other important applications.
Pentahydrate Sodium Metasilicate
CRYSTAMET®
Exceptionally pure hydrated metasilicate. Stable crystal structure and uniform spherical granules makes CRYSTAMET ideal for compounding free-flowing mixtures. Available in three screen ranges.
Anhydrous Sodium Sesquisilicate
DRYSEQ®
A medium pH alkaline salt for fast, dependable work at low cost to the user. DRYSEQ has excellent penetrating and wetting-out properties.
Cowles
CHEMICAL COMPANY
7018 Euclid Ave. • Cleveland 3, Ohio
Stocked in principal cities and available in mixed carloads and truckloads, Cowles detergent silicates give you complete versatility in compounding. Send letterhead request today for more information.

Sodium thiosulfate, tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald. 100 lbs. 4.95 • —
100-lb. bgs., l.c.l., l.t.l., frt. equald 100 lbs 5.20 • —
Sodium titanate, ctns. c.l., works. lb. .14¼ —
ctns. 5-ton lots, works lb. .14½ —
ctns., l-ton lots or less, works lb. .14¾ —
Sodium trichloroacetate, 90%, 100-lb dms., c.l., frt alld E. lb. .35 • —
50-lb dms., c.l., frt. alld. E lb. .35½ —
10-lb cns., c.l. frt alld E lb .42 —
Prices on Sodium trichloroacetate W of the Rockies are 1¾c per pound higher.
Sodium tripolyphosphate, bgs., c.l. works, frt. equald 100 lbs. 7.90 • —
bgs., l.c.l., same basis 100 lbs 8.65 • —
bulk, hopper cars, same basis. 100 lbs. 7.35 • —
Sodium trisilicate, powd., 1:3.2, bgs. c.l., works 100 lbs 8.95 —
bgs., l.c.l., works 100 lbs 9.70 -13.13
dms., c.l., works 100 lbs 9.45 —
dms., l.c.l., works 100 lbs 10.20 -10.60
Sodium tungstate, tech., kgs., dlvd. E lb 1.32 • —
Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 • —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium formaldehyde sulfoxylate, dms., t.l., dlvd lb. .22½ —
dms., l.t.l., same basis lb. .23 • —
Sodium zirconyl sulfate, fib dms., 1,000-lb. lots or more works lb .28 • —
fib. dms., smaller lots, same basis lb .30 • —
Solvent naphtha, coaltar, high-flash, tanks, frt equald gal. .30 • .35½
Solvent naphtha, petroleum, straight aromatic, 310°-360°F b.r., 14° 16°C m.a.p., tankcars, New Jersey and New York gal. .29 • —
Houston, Texas gal. .29 • —
355° 420°F. b.r., 17° 18°C. m.a.p., tankcars, New Jersey and New York. gal. .30 • —
Houston, Texas gal. .30 • —
Solvent naphtha, petroleum, partial aromatic, 211°-265°F b.r., 31°C. m.a.p., tankcars, New Jersey and New York gal. .235 • —
286°-340°F. b.r., 22°C. m.a.p., tankcars, New Jersey and New York gal. .275 • —
319°-380°F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 • —
322° 392°F b.r., 28°C m.a.p., tankcars, New Jersey and New York gal. .28 • —
Sorbitan monostearate fib dms., 20,000-lb. lots, works lb. .33½ —
10,000 to 20,000-lb. lots, works. lb. .35½ —
fib. dms., smaller tots, works lb. .38½ .40½
Sorbitan tristearate fib dms. 20,000-lb. lots, works lb. .34 • —
fib dms., 10,000 to 20,000-lb lots, works lb. .36 • —
fib. dms., smaller lots, works lb. .39 • .41
Sorbitol, NF. reg., 70% aqueous, dms., c.l., works lb. .18 • —
dms., l.c.l., works lb. .19 • —
tanks, works lb. .16¼ —
cryst., resin grade, pellets, dms., c.l., works lb. .23 • —
dms. 1 to 5-ton lots, works. lb 25 .26
powd., dms., c.l., works lb. .38½ —
dms., 10,000 to 20,000 lb. lots, works lb. .40½ —
Sorbitol, soln., comi., aqueous, dms., c.l., works lb. .26 • —
dms., l.c.l., works lb. .27 • —
tanks, works .23¼ • —
Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 • —
bgs., l.c.l., works lb. .23¼ .23½
Chemically isolated, new process, bgs., c.l., works lb. .20 • —
bgs., l.c.l., works lb. .20¼ • .29½
Soybean meal, 44%, bulk, unrestricted, Decatur ton. 74.00 • —
Soybean oil, crude, tanks, Decatur, lb. .13⅜ —
Foots, soapstock acid 95%, tanks, New York lb. .06¾ • .07
Soybean oil, alkali, refd., dms lb. .17675- .18
tanks lb. .15675- —
Clarified, dms. lb. .17175- .1750
tanks lb. .15175- —
Salad, refd., dms. lb. .17⅝ .17⅞
tanks lb. .15⅞ —
Soybean oil acids, dbl. dist., dms., lb. .16¾ .19¼
tanks lb. .14¼ —
S. D., dms lb. .15½ .18
tanks lb. .13 • —
Sparteine sulfate, cns., 100 oz. or more oz. .80 • —
Spearmint leaves, dom bls lb 75 • —
Spearmint oil, NF, dms ton. lb. 5.25 • —
Sperm oil, bleached winter, 45°, dms lb. .1675- .1775
tanks lb. .1475- —
Nat., winter 45°, dms lb. .1575- .1675
tanks lb. .1375- —
Spermaceti wax, blocks, cs. lb. .32 .33
Cakes, cs. lb. .33 .34
Spruce oil, cns., dms. lb 2.10 3.55
Squill, white, bls. lb .16 .18
Powd., bbls., bxs. lb .17 .20
St. John's bread, edible, bls lb .17 —
Stannic chloride, anhyd, dms, works lb. .841 • .863
Stannic oxide, dms., dlvd. lb. —
Stannous chloride, anhyd, dms, works lb. 1.044 • 1.299
Hyd., dms., works lb. —
Stannous sulfate, dms., works lb. 1.096 • 1.136
Star root (see Helonias root).
Stargrass root (see Aletris root.)
Staveacre seed, bgs lb 60 61
Stearic acid, dbl., pressed, bgs lb. .18 • .21½
Single-pressed, bgs. lb. .17½ .20
Triple-pressed, bgs. lb. .19¾ • .22¼
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York gal. .18 —
tanks, Houston gal. .1475- —
tanks, group 3 gal 12875 —
Stramonium leaves, bgs. lb. .16½ .18
Streptomycin sulfate, bulk gram. .028 • .03
Strontium bromide, NF, cryst., gran., 150-lb dm., frt. equald lb. 1.00 • —
Strontium carbonate, pure dms. 5-ton lots or more, works lb 35 • —
dms. 1-ton lots, works lb 37 • —
Tech., dms., works lb 19 • —
Strontium chromate fib dms. dlvd. lb 48 • —
Strontium iodide, jars, 25-lb. lots lb. 3.57 • —
Strontium nitrate, bgs., c.l., works. 100 lbs. 11.00 • —
bgs., l.c.l., works 100 lbs. 12.00 • —
Strontium salicylate, NF, dms lb. 1.88 • —
Strontium sulfate, air floated, 90%, 325 mesh, bgs., works. ton. 56.70 -66.15
Strophanthin G (see Quabain, USP).
Strophanthin K, bots. oz. 25.00 -25.50
Strophanthus seed, Kombi, biologically tested, bgs lb. 2.50 • 3.00
Styrax gum, USP cs. lb. 4.50 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., dlvd. lb. .17 • —
dms., l.c.l., same basis lb. .19 • —
tanks, frt. equald. lb. .13 • —
Styrene monomer, tech., 99.2%, dms., c.l., dlvd lb. .15 • —
dms., l.c.l., same basis lb. .17 • —
tanks, frt. equald lb. .1099- —
Above prices are escalated for each calendar quarter on the basis of cost of benzene in the range of 31c. to 34c. a gallon and petroleum refining labor.
Styrolyl acetate, bots lb. 1.03 1.10
Succinic acid, purif., cryst., dms., t.l., frt. alld lb. .62 • —
dms., l.t.l., same basis lb. .63 • .75
Succinic anhydride, dms., c.l., t.l., dlvd lb. .51 • —
dms., l.c.l., same basis lb. .52 • —
Sucrose, refd., white, bgs., refy E. lb. .0940- —
Sucrose acetate, isobutyrate, 90%, dms., t.l., dlvd lb. .33½ —
dms., l.t.l., same basis lb. .35 • —
tanks, same basis lb. .31 • —
100%, t.l., dms., dlvd. lb. .35½ —
l.t.l., dms., same basis lb. .37 • —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works lb. 1.00 • —
Sugar (see Sucrose).
Sugar cane, wax, dom., refd., slabs, 80-lb. ctns., works lb. .60 • .65
80-lb ctns., spot lb. .65 • .75
Sulfabenzamide, dms. kilo 8.80 9.90
Sulfabenzamide-sodium, dms. kilo 9.00 -10.10
Sulfacetamide, USP, fib dms kilo. 6.61 6.83
Sulfacetamide-sodium, USP, fib. dms kilo. 8.15 9.25
Sulfadiazine, USP, microcrystals, dms kilo. 23.35 -24.45
USP, powd., dms. kilo. 22.60 23.70
Sulfadiazine-sodium, USP, dms kilo. 24.80 -25.90
Sulfaguanidine, NF X, dms kilo 5.50 6.60
Sulfamerazine, USP, microcrystals, dms kilo. 23.50 • —
Sulfamerazine-sodium, USP, powd., dms kilo. 24.80 25.90
Sulfamethazine, USP XV, microcrystals, dms kilo. 19.65 -20.75
USP XV, powd., dms kilo. 18.75 -19.85
Sulfamic acid, cryst, dms., c.l., t.l., works 100 lbs. 16.00 —
dms., l.c.l., t.t.l., works 100 lbs. 17.50 18.50
Gran., dms., c.l., t.l., works. 100 lbs. 14.75 —
dms., l.c.l., t.t.l., works 100 lbs. 16.25 -17.25
Sulfanilamide, NF reg., 1,000 lb., fib. dms., frt. equald lb. 1.75 • —
NF, reg., smaller lots, fib. dms., frt. equald lb. 1.80 • —
Sulfanilamide quinoxaline, veterinary dms kilo. 16.28 • —
Sulfanilic acid, tech. dms. c.l., frt. alld lb. .21 • —
dms., l.c.l., frt alld lb. .23 • —
Sulfapyridine, USP XV, powd., bots., tins kilo. 15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms kilo. 16.55 -17.65
Sulfathiazole, NF X, microcrystals, dms kilo. 6.25 6.90
NF X, powd., dms. kilo. 5.50 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb lots or more lb. 2.35 —
Sulfur, comi., flour, bgs., mines. 100 lbs. 2.35 • —
bbls., mines 100 lbs. 3.30 • —
lump, bgs., mines 100 lbs. 2.25 • —
bbls., mines 100 lbs 2.80 • —
Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines long-ton. 23.50 • —
export, f.o.b. vessels, Gulf ports. long-ton. 25.00 • —
US and Canada, f.o.b vessels Gulf ports long-ton 25.00 • —
Domestic dark sulfur prices are $1 per long-ton lower
Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton. 24.00 • —
Mexican dark sulfur price is $1 per long-ton lower.
Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.65 • —
bbls., mines 100 lbs. 7.00 • —
flour, light, bgs., mines 100 lbs 5.25 • —
bbls., mines 100 lbs 6.25 • —
lump, bgs., mines 100 lbs 4.95 • —
rolls, bgs., mines 100 lbs 5.50 • —
bbls., mines 100 lbs 6.25 • —
salt block, bgs., mines 100 lbs 4.65 • —
virgin block, bbls., mines 100 lbs 4.70 • —
Sulfur, rubbermakers, comi., reg., bgs., mines 100 lbs 2.45 • —
bbls., mines 100 lbs 3.70 • —
98-100%, passing through 325 mesh, bgs., mines 100 lbs. 2.55 • —
bbls., mines 100 lbs 3.80 • —
Refd., bgs., mines 100 lbs. 4.90 • —
bbls., mines 100 lbs 6.05 • —
treated, 2.5% mineral oil, bgs., mines 100 lbs 2.75 • —
bbls., mines 100 lbs 4.00 • —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05½ —
ret. dms., l.c.l., same basis lb. .06¾ —
tanks, same basis lb. .04½ —
Sulfur dioxide, liq. comi., cyls., works, frt. equald lb. .10 • .13
multi-unit cars, works lb. .0535- —
tanks, works lb. .045 • —
refrigeration, cyls., dlvd lb. .33 • —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .05½ —
dms., l.c.l., same basis lb. .06¾ —
tanks, same basis lb. .04½ —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 • —
cbys., l.c.l., works 100 lbs. 2.30 • —
tanks, works ton. 18.60 • —
66° Be, cbys., c.l., works 100 lbs. 2.25 • —
cbys., l.c.l., works 100 lbs 2.55 3.35
tanks, works ton 22.35 • —
98%, tanks, works, East ton. 23.50 • —
99%, tanks, works, East ton. 23.70 • —
100%, tanks, works, East ton. 23.95 • —
Sulfuric acid, California works, tanks ton. 26.45 • —
CP, NF consumers cbys., c.l., frt. equald lb. .12¾ —
Consumers' cbys., l.c.l., same basis lb. .14¼ .14¾
5-pt. bots. extra, cs., c.l., works, frt alld lb. .16¼ —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾ .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton. 25.00 • —
40%, tanks, works ton. 29.00 • —
65%, tanks works ton. 39.50 • —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 • .93
bulk, c.l., Carteret, N. J. unit-ton. .90 • .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla., unit-ton. 1.00 • —
bulk, f.o.b. vessel at Fla unit-ton. 1.05 • —
Sweet birch oil, USP, northern, cns lb. 4.00 9.50
USP, southern, cns lb. 2.00 3.05

T

2,4,5-T, dms., c.l., works, frt. equald, lb. 1.18 • —
dms., l.c.l., same basis lb. 1.25 • —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 • —
dms., l.c.l., works lb. 1.29 • —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton. 28.00 • —
bgs., l.c.l., works ton. 31.00 -36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton. 31.00 • —
bgs., l.c.l., works ton. 34.00 • —
Talc, dom., fibrous, 99.95%, 400 mesh, micronized bgs., c.l works ton. 38.00 • —
625 mesh, micronized, bgs., c.l., works ton. 80.00 • —
Talc, dom., ord., Calif., grd., bgs., c.l., works ton. 34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton. 19.40 • —
bgs., l.c.l., works ton. 37.00 • —
Imp., Canadian, grd., bgs., c.l., mines ton. 20.00 -35.00
tanks, works lb. .02⅞ .03⅛
Tall oil, crude, tanks, works lb. .03¼ —
Dist., depending on grade, dms., c.l., works lb. .06½ .09¼
tanks, works lb. .05¼ .08
Refd., depending upon grade, dms., c.l., works lb. .08¾ .09¾
tanks, works lb. .07½ .08½
Tall oil acids, dms., c.l., works lb. .07 • .10
dms., l.c.l., works lb. .07½ .10½
tanks, works lb. .05 • .07½
Tallow, edible, tanks dlvd lb. .11 Nom.
Inedible, fancy, bleachable, tanks, lb. .08⅛ —
fancy, guaranteed, bulk, f.o.b. steamer lb. .08⅜ —
fancy, guaranteed, bulk, f.o.b. dms., f.a.s. lb. .09⅜ —
tanks, dlvd. lb. .08⅜ —
No. 1, dlvd lb. .07⅝ —
Prime, tanks, dlvd lb. .07⅞ —
Special tanks, dlvd lb. .07¾ —
Sulfonated, 25%, bbls., l.c.l. lb. .08½ .08¾
50%, bbls., l.c.l. lb. .10½ .11
Tallow acids, dist., dms. lb. .14½ .17
tanks lb. .12 • —
Hydrogenated, dms. lb. .16¾ .19¼
Tallow oil, acidless, dms., c.l. lb. .14 • —
dms., l.c.l. lb. .16 • —
tanks lb. .12½ • —
Tangerine oil, Florida, dms lb. 4.75 • —
Tankage, animal, feeding, 9-11% ammonia, New York bulk, unit-ton. 4.75 5.00
Tannic acid, NF, fluffy, bbls., 1,000-lb lots lb 2.05 —
bbls., smaller lots lb 2.06 2.07
powd., bbls., 1,000-lb. lots lb. 1.95 • —
bbls., smaller lots lb 1.96 1.99
Tech., dms lb 1.05 —
Tansy oil, dms lb. 6.60 8.00
Tar acid oil, 15-18%, dms., c.l., dms., l.c.l., same basis gal. .55½ —
tanks, same basis gal. .43½ —
25-28%, dms., c.l., frt. equald, basis gal. .53½ —
dms., l.c.l., same basis gal. .60 • —
tanks, same basis gal. .62 • —
50-53%, dms. c.l., same basis gal. .50 • —
dms., l.c.l., same basis gal. .75 • —
tanks, same basis gal. .77 • —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF 100-lb bgs., c.l., frt. equald lb. .41 • —
bgs., 10,000 lbs. 1 shipt., same basis lb. .43 • —
bgs., smaller lots, same basis lb. .47 • —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms lb. .70 • —
Terpineol, extra, dms lb. .50 • .60
Prime, dms. lb. .40 • .50
Terpinyl acetate, extra, cns., dms. lb. .64 • .75
Prime, dms lb .53 56
Terpinyl propionate, dms lb. 1.65 • 1.70
Testosterone, USP bots gram No prices.
Testosterone propionate, USP bots, gram. No prices.
Tetrachloroethane, dms., works lb. .14½ —
Tetrasodium pyrophosphate (see Sodium pyrophosphate)
Tetrachloroethylene, tech. (see Perchloroethylene)
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½ —
dms., l.c.l., works lb. .22 • .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .60 • —
dms. l.c.l. dlvd. E lb. .61½ • —
Tetraethyl pyrophosphate, 40%, cns., dms., frt equald lb. .75 • —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½ —
dms., l.c.l., dlvd. E lb. .55 • —
tanks, dlvd. E lb. .51 • —
Tetraethylthiuram disulfide, tech., dms., frt. alld lb. 1.04 • —
Tetrahydrofuran, dms. c.l., t.l., works lb. .36½ —
dms., l.c.l., or l.t.l., works lb. .37 • —
tanks, works lb. .35 • —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½ —
dms., l.c.l., Memphis, Tenn lb. .32½ —
dms., c.l. t.l., Newark N.J lb. .33½ —
Tetrahydrofurfuryl alcohol, dms., l.c.l., Newark, N. J. lb. .28½ —
tanks, dlvd, E. of Denver lb. .25 • —
tanks, dlvd, W. of Denver lb. .26 • —
Tetrahydrophthalic anhydride dms., c.l., t.l., frt. alld. E lb. .39 • —
l.c.l., t.l., same basis lb. .41 • —
Tetrapotassium phosphate (see potassium phosphate)
Thallium metal, dlvd lb 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb 5.00 -10.00
Theobromine, NF, fib dms, 100 lbs., f.o.b., works lb. 4.10 4.15
Theobromine and sodium acetate, USP, fib dms., 500-lbs. works lb. 6.45 —
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works, lb 3.80 • —
Theophyline, USP, anhyd., 100-lb. dms., frt alld lb 3.65 • —
Thiamine hydrochloride, USP, fib. dms., frt alld kilo. 36.00 • —
USP, ampule grade, fib., dms., frt alld kilo. 38.00 • —
Thiamine mononitrate, USP, fib dms., frt. alld kilo. 36.00 • —
Thiocarbanilide, dms., ton lots lb. .74 • —
dms., less ton lots lb. .76 • —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 • —
Tungstated, PTMA, kgs., works lb. 6.20 • —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis lb. 1.15 • —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 • —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 • —
bgs., ton lots, same basis lb. .32 • —
bgs., less than ton lots, same basis lb. .33 • —
Thorium nitrate, purif., fib dms., 100-lb. lots or more, works lb. 3.50 • —
dl-Threonine, dms., 25 kilos, works, kilo. 115.00 • —
Thyme leaves, French, triple sifted extra, bgs lb. .27 • —
Spanish, extra, bgs lb. .12 • —
triple sifted, bgs. lb. .25 • —
Spanish, bgs. lb. .09 • —
Thyme oil, NF, red, cns., dms. lb. 3.35 • 3.60
NF, white, cns lb. 3.60 • 3.95
Tech., white, cns lb. .80 • 1.10
Thymol, fib dms., 25-lbs., f.o.b. works lb. 2.45 • —
Thymol iodide, NF, dms., 100-lbs f.o.b. works lb. 7.30 • —
Timbo root (see Cube root)
Tin chloride (see Stannous chloride, anhyd.)
Tin crystals (see Stannous chloride, hydrous)
Tin metal (Straits) lb. 1.08 • —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride anhyd. (see Stannic chloride, anhyd.).
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd lb. .25½ —
bgs., l.c.l., dlvd. lb. .26½ —
reg., bgs., c.l., dlvd. lb. .25½ —
bgs., l.c.l. dlvd. lb. .26½ —
metallurgical, nat., bgs., c.l., f.o.b Jacksonville Fla. ton. 180.00 • —
Titanium dioxide, metallurgical, nat., bgs., 5-ton lots, Niagara Falls, N. Y. ton. 205.00 • —
bgs. ton lots, same basis ton. 215.00 • —
Milled metallurgical titanium dioxide $7.50 per ton higher
Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd. E lb. .27½ —
bgs. l.c.l., dlvd. E lb. .28½ —
Titanium dioxide-calcium pigment, 30% Ti O_2, reg., bgs., c.l., dlvd lb. .09⅜ —
bgs., l.c.l. works lb. .09⅞ —
50% Ti O_2, high-tinting, dms., c.l., lb. .14⅜ —
dms. l.c.l. lb. .14⅞ —
Titanium hydride, powd., dms., works lb. 8.10 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .26 —
dms., l.c.l., works lb. .27½ .29
tanks, works lb. .20 —
Tobias acid, dms., c.l., t.l. lb. .81 • —
dms. l.c.l. lb. .84 • —
d-a-Tocopherols, NF, mixer, conc., pure basis, bots kilo. 67.00 • —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo. 122.00 • —
d-a-Tocopheryl acid succinate, cryst., bots kilo. 109.00 • —
dl-a-Tocopherol, bots. kilo. 99.00 • —
dl-a-Tocopheryl acetate, bots kilo. 90.00 • —
25% dry. powd., bots kilo. 22.50 -24.00
33% dry. powd. bots. kilo. 30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis lb 1.55 • —
Paste, kgs., 100% basis lb. 1.50 • —

TOLUOL

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine hydrochloride paste, kgs., 100% basis lb. 1.50 • —
Tolu balsam, cns lb. 4.00 • —
Toluene, coaltar, industr., or nitration, tanks, dlvd. E. of Rockies gal. .25½ —
Toluene, petroleum, industr., tanks, f.o.b., frt. equald gal. .25 • —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 • —
dms., t.t.l. same basis lb. .63 • —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld lb. .16 • —
1,000-lb. or more, same basis lb. .18 • —
less than 1,000-lb., same basis lb. .23 • —
tanks, same basis lb. .14 • —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l lb. .90 • —
dms. 125 lbs. to t.l. lb. 1.00 • —
m-Toluidine, dms. c.l., works, frt. alld lb. .83 • —
dms., l.c.l., same basis lb. .84 • —
tanks, same basis lb. .82 • —
o-Toluidine, dms., c.l., works, frt. alld lb. .30 • —
dms., l.c.l. same basis lb .31 • —
tanks, same basis lb. .28 • —
p-Toluidine, tech. flake, dms., frt. alld lb. .50 • —
Cast, dms., frt. alld. lb. .45 • —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 • 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 • —
Light shades, kgs. works lb. 1.70 • —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld lb. 1.10 • —
Tonka beans, Angostura, cks. lb. 1.50 • —
Brazilian, Surinam, cs. lb. 1.30 • —
Totaquine, 100-oz. lots, cns. oz. .42 • —
Toxaphene, dms., c.l., t.l., works, lb. .22 • —
dms., l.c.l., t.t.l., works lb. .28 • —
Tragacanth gum, No. 1, ribbons, cs lb. 4.10 4.20
No. 2, cs. lb. 3.75 3.80
No. 3, cs. lb. 3.40 3.65
USP powd., bbls. lb 1.05 1.15
Triacetin, dms., c.l., dlvd. E. of Rockies lb. .39 • —
dms., l.c.l., same basis lb. .40 • —
tanks, same basis lb. .37 • —
Triallylamine, dms., c.l., dlvd. lb. .985 • —
dms., l.c.l., dlvd. lb. .995 • —
tanks, dlvd lb. .96 • —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld E. of Denver. lb. .42½ —
non-ret. dms., c.l., frt. alld. E. of Denver lb. .43½ —
tanks, frt alld E of Denver lb. .40 • —
Tributyl phosphate, dms., c.l., works. lb. .52½ —
dms, l.c.l., same basis lb. .53½ —
tanks, same basis lb. .50 • —
Tributylamine, dms., c.l., works lb. .67½ —
dms., l.c.l., same basis lb. .69 • —
tanks, same basis lb. .65 • —
Tributyrin, dms, c.l. dlvd lb .69 —
Trichloroacetic acid, tech., 300-lb. dms, c.l., f.o.b works lb .52 • —
USP, 100-lb. dms., frt. equald lb. 1.25 • —

Trichlorobenzene, dms., c.l., frt. alld. E lb. .15 - —
dms., t.c.l., frt. alld. E lb. .16 - —
tanks, frt, alld, E lb. .13¼- —
Trichlorobenzene prices in the West 1¼c. higher.
1,1,1-Trichloroethane, dms., c.l., divd. lb. .13¼- —
dms., t.c.l., divd lb. .16 - —
tanks, divd lb. .12¼- —
1,1,2-Trichloroethane, dms., c.l., works lb. .15½- —
dms., t.c.l., works lb. .16¼- —
tanks, works lb. .13½- —
Trichloroethylene, dms., c.l., or t.l., divd. lb. .12½- —
dms., t.c.l., divd. lb. .14 - .14½
tanks, divd. lb. .11¼- —
Trichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms., t.c.l. same basis lb. .75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. chys. works, frt. adjusted. lb. 1.40 - 1.45
Tricresyl phosphate, coaltar, dms., c.l., divd lb. .35 - —
dms., t.c.l., divd. lb. .36 - —
tanks, divd lb. .32½- —
Tricresyl phosphate, petroleum, dms., c.l., divd. lb. .35 - —
dms., t.c.l., divd. lb. .36 - —
tanks, divd. lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., divd. E lb. .26½- —
dms., t.c.l., divd. E lb. .28 - —
tanks, divd E lb. .24 - —
Triethanolamine dms, c.l., divd E. lb. .24½- —
dms., t.c.l., same basis lb. .26 - —
tanks, same basis lb. .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld lb. .25½- —
dms., t.t.l. frt. alld. lb. .26½- —
tanks, frt alld. lb. .24½- —
Triethylamine dms., c.l., divd E. lb. .50 —
dms., t.c.l., same basis lb. .51½- —
tanks, same basis lb. .47½- —
Triethyl citrate, refd., tech., non-ret dms., c.l., frt. alld E. of Denver lb. .46¼- —
non-ret dms., t.c.l., frt alld. E. of Denver lb. .47¼- —
tanks frt alld E of Denver. lb. .43¾- —
Triethyl phosphate, dms., c.l., divd. lb. .40½- —
dms., t.c.l., divd. lb. .42 - —
tanks, divd. lb. .38 - —
Triethylene glycol, dms., c.l., divd. E lb. .21 - —
dms., t.c.l., divd. E lb. .22½- —
tanks, divd, E lb. .18½- —
Triethylenetetramine, dms., c.l., divd. E lb. .51½- —
dms., t.c.l., divd E lb. .53 - —
tanks, divd E lb. .49 - —
Triisobutylene, tanks, divd. lb. .08 - —
Tri-isopropanolamine, dms., c.l., divd. E lb. .23¼- —
dms., t.c.l., divd E lb. .24¾- —
tanks, divd E lb. .20¾- —
Trimethylamine anhyd., cyls., t.c.l., frt. equald, 100% basis lb. .30 .305
tanks frt equald. 100% basis. lb. .26 - —
25-40% soln. dms. c.l., frt. equald, 100% basis lb. .35 - —
dms. t.c.l. frt. equald, 100% basis lb. .35½- —
tanks, 100% basis frt. equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., divd. E lb. .30½- —
dms., t.c.l., t.t.l., same basis lb. .31½- —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 —
dms., t.c.l., works lb. .51½- —
Tripentaerythritol, bgs., c.l., t.l., divd. E lb. .34 - —
bgs., t.c.l., t.t.l., divd. E lb. .35 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .41¼- —
bbls. t.c.l., frt. equald lb. .43½- —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene dms., c.l., divd. E gal. .44 - —
dms., t.c.l., same basis gal. .54 - —
tanks, same basis gal. .28 - —
Tripropylene glycol, dms., c.l., t.l., frt. alld E lb. .20½- —
dms., t.c.l. t.t.l. frt. alld. E lb. .22 - —
tankcars and compartmented tankcars, frt alld E lb. .17½- —
tankwagon and compartmented tankwagon, 1,000 gals., min. frt. alld. E. lb. .18 - —
Tripropylene glycol prices 1c per lb higher in west.
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Trypophane, dms., 1 kilo, works. kilo. 154.00 - —
Tung oil, dms., New York lb. .28½- .29
tanks, imported lb. .27 - —
tanks, domestic, mills lb. .27 Nom.
Tungsten metal powd. 2.0-2.5 microns, dms., works lb 4.25 —
Tungstic acid tech., dms., 1,000-lb lots, works lb 2.25 - —
dms. smaller lots, works lb 2.45 - —
Turkey red bbls. works lb. 62 —
Turpentine, gum (see Protective Coatings market Naval Stores)
Turpentine oil NF cns. dms lb .28 .50
Tuscan red bbls. frt equald lb .26 .32
Tyrothricin USP. 1 to 5 kilos gram .50 —

U

Ultramarine blue, cobalt type, dry or pulp 250-lb bbls., divd. E. of Rockies lb. .30½- .35
Ultramarine blue, jobbing types, dry, bbls., same basis lb. .16 - .22½
Regular types dry bbls. same basis lb .16 - .37½
Ultramarine blue prices 1c higher W of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½ - .07¾
bgs., t.c.l. works lb. .07¾ - .08
turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N.Y. lb. .08¼- —
Raw, American, bgs. works lb. .07¾ - .08¼
Turkey-type bgs. works lb 08½ - .08¾
Undecylenic acid 55-gal dms., f.o.b. works lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea 46% N indust. bgs., c.l. t.l., f.o.b. plant ton. 100.00 - —
Feed grade, c.l., t.l., f.o.b. plant, ton. 95.00 - —
45% N, agricultural, bgs., c.l. f.o.b. plant ton. 92.50 - —
Bulk, c.l., t.l., same basis ton. 86.50 - —
Urea-ammonia liquor A, B, C & F grades. N basis, tanks frt. equald ton. 120.00 - —
37 grade tanks same basis ton. 145.00 - —
Urethane USP dms. t.l., f.o.b., works lb 65 - —
dms. t.t.l. same basis lb 70 - —
Uva-ursi leaves, bls lb .12 - —

V

Valerian root, Belgian bgs. lb. .32 - —
Indian, bgs. lb. .25 - —
dl-Valine, dms., 1 kilo, works. kilo. 37.00 - —
Vanadium pentoxide, tech., dms., works lb. 1.38 - —
Vandyke brown, bbls., works lb. .09½- .12
Vanilla beans, Bourbon, tins lb. 6.90 - 7.10
Mexican cuts, tins lb. 7.10 - 7.40
whole, tins lb. 7.50 - 8.50
Vanillin ex lignin, 100-lb. fib. dms., 2,000-lb. lots or more lb. 3.00 - —
less than 2,000 lbs lb. 3.20 - 3.30
Venetian red, jobbing, bgs., works. lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0575- —
30%, bgs., works lb. .06 - —
35%, bgs., works lb. .0625- —
40%, bgs., works lb .0675- —
Vetiver oil, Bourbon, cns. lb. 17.00 -17.25
Haitian, cns. lb. 12.00 -14.00
Victoria blue toner, molybdated, PMA 250-lb. bbls., divd. E. of Rockies lb. 6.50 - 6.95
Tungstated, PTMA, 250-lb. bbls., divd. E. of Rockies lb 5.55 - —
Victoria blue toner, bbls., prices 1c. higher W of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., divd lb. .1810- —
55-gal dms., t.c.l., divd lb. .1960- —
tanks, divd. lb. .1560- —
tanktrucks less than 4,000 gal., divd lb. .1610- —
Vinyl n-butyl ether, tech., dms., t.c.l., works lb. .50 - —
Vinyl chloride monomer, tanks, works, min. frt. equald. E. lb. .0896- —
Vinyl ether, USP, anesthesia, bots., 50cc., hospitals bot. 1.12 - —
bots., 75cc., hospitals bot 1.56 - —
Vinyl ethyl ether, tech., dms., c.l., works lb. .30¼- —
dms., t.c.l., works lb. .31 - —
tanks, works lb. .28¼- —
Vinyl propionate monomer, dms., c.l., divd lb. .49 - —
dms., t.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb. 1.20 - —
1 to 9 dms., works lb. 1.35 - —
tanks, works lb 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., works. lb. .16½- —
dms., t.c.l., same basis lb. .18½- —
tanks, f.o.b. dest. frt. prepaid lb. .14 - —
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02¼- —
Virginia type red, bbls., works lb. 1.40 - —
Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram gram .07¼- —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo. 65.00 - —
325,000 units per gram, same basis kilo. 43.88 - —
250,000 units per gram, same basis kilo. 33.75 —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.
Vitamin A, liq in oil, 1,000,000 A units per gram 1,000,000 units. .09½- —
Vitamin A palmitate liq., 1,000,000-1,800,000 A units per gram 1,000,000 units 09½- —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams vials, tins gram. 45.00 - —
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo, dms., gram. .57 - —
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on resin, 100 and 500-gram bots. 1-5 kilo dms. gram. .57 - —
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B_{12} activity gram. 52.00 - —
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo. 52.00 - —
0.1% trituration of cyanocobalamin, USP, with dicalcium phosphate or mannitol gm. 52.00 - —
USP solution of cyanocobalamin (5,000 micrograms per cc.), 5-gram bots gram. 52.00 - —
Vitamin B_{12}, 0.1% cobalamin concentrate, NF, adsorbed on resin, 500-gram bots., 1-5 kilo dms., frt. alld. gram. .57 - —

MONTROSE

CHEMICAL COMPANY

100 LISTER AVENUE
NEWARK, NEW JERSEY

Dimethyl Isophthalate

T.C.P.— Tricresyl Phosphate

Cresyl Diphenyl Phosphate

D.D.T.— Dichloro Diphenyl Trichloroethane

Ethyl Silicate 28%—40%

Triphenyl Phosphate

Send for literature and samples

EXCLUSIVE SALES AGENT

R.W. Greeff & Co., Inc.

10 ROCKEFELLER PLAZA, NEW YORK 20, N. Y. • Circle 6-9680
1721 TRIBUNE TOWER, CHICAGO 11, ILLINOIS • WHitehall 4-6960

Vitamin B_{12}—Zirconium Oxychloride

Vitamin B_{12}, 0.1% cobalmin concentrate in gelatin, 1-10 kilo. dms., frt. alld gram		.57	—
Vitamin C (see Ascorbic acid).			
Vitamin D, (see Codliver and Fishliver oils, Calciferol and Viosterol)			
Vitamin D dry, 850,000 units per gram kilo lots kilo		42.50	—
850,000 units per gram less than kilo lots kilo		45.00	—
Vitamin E (see a-Tocopherol and Wheat germ oil)			
Vitamin H (see Biotin)			
Vitamin K active (see Menadione).			
Vitamin K1, 25-gram lots gram		4.50	—
Violet methyl toner (see Methyl violet toner)			
VM&P naphtha (see Naphtha VM&P petroleum).			

W

Wahoo root bark bls	lb	2.00	2.25
Warfarin 0.5% dms. 50-lb. lots, dlvd	lb	1.95	—
dms. 25-49-lb lots New York or Chicago	lb	2.05	—
dms. 5-24-lb lots New York or Chicago	lb	2.15	—
Watchung-type reds. bbls	lb	1.95	—

WAXES

Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal dms.	gal.	12.25	—
White lead (see Lead, white).			
White mineral oil (see Mineral oil, white).			
White pine bark, rossed, bls	lb	21	.22
White precipitate USP powd., dms., 100 lbs. f.o.b works	lb	5.50	—
Whiting (see Calcium carbonate)			
Wild cherry bark, thin, nat., bls	lb.	.30	—
Wintergreen oil USP nat. north ern. cns	lb	6.35	17.50
USP. nat southern cns	lb	3.75	7.00
Wintergreen oil, syn (see Methyl salicylate)			
Witch hazel bark, bls	lb.	.30	.35
Witch hazel leaves, bls	lb.	.75	.80
Wollastonite fine paint grade, bgs., c.l., works	ton.	41.00	—
bgs., l.c.l., ex whse	ton.	51.00	—
medium paint grade, bgs., c.l., works	ton.	39.00	—
bgs., l.c.l., ex whse.	ton.	39.00	—
Wood alcohol (see Methanol).			
Wood oil (see Tung oil)			
Woolfat crude (see Degras)			
Woolfat USP (see Lanolin).			
Wormseed Levant bgs	lb	2.50	—
Wormseed oil (see Chenopodium oil NF)			
Wormwood oil, cns	lb.	4.75	—

X

Xylene, coaltar, indust., tanks, works:			
Bethlehem Pa.	gal.	.29	—
Birmingham dist.	gal.	.29	—
Chicago dist	gal.	.28½	—
Cleveland dist.	gal.	.29	—
Geneva, Utah	gal.	.29	—
Johnstown, Pa	gal.	.29	—
Lackawanna, N.Y.	gal.	.29½	—
Lone Star, Tex	gal	.27	—
Xylene, coaltar, Lorain, Ohio	gal.	.29	—
Middletown, Ohio	gal.	.30	—
Minnequa, Col.	gal.	.29	—
Philadelphia dist.	gal.	.29	—
Pittsburgh dist.	gal.	.29	—
Sparrows Point, Md.	gal.	.29	—
Terre Haute, Ind.	gal	.29	—
Youngstown, Ohio	gal.	.29	—
Xylene, petroleum, indust., tanks f.o.b works:			
Bayonne N. J	gal.	.29	—
Baytown, Tex.	gal.	.27	—
Charleston, S. C.	gal.	.29	—
Chicago, Ill	gal.	.28½	—
Detroit, Mich., dlvd	gal.	.27½	.29
Houston, Tex.	gal.	.27	—
Philadelphia, Pa.	gal.	.29	—
Providence, R. I.	gal.	.30	—
Sewell's Point, Va.	gal.	.28	—
Wood River, Ill	gal.	.28½	—
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif.		.21	—
dms. l.c.l. f.o.b., Richmond, Calif.		.22	—
tanks, frt. alld.	lb.	.19	—
o-Xylene, dms., c.l., works	lb.	.08	—
dms., l.c.l., works	lb.	.09	—
tanks, works	lb.	.06	.06½
p-Xylene dms., c.l., works	lb.	.20	—
dms., l.c.l., works	lb.	.21	—
tanks, frt alld	lb.	.1645	—
Xylenol cryst., 45°-47°C., m.p., dms., l.c.l., works, frt. equald	lb.	.23	—
56°-58°C., m.p. dms., l.c.l., works, frt. equald	lb	.33	—
60°-62°C., m.p., dms., l.c.l., same basis	lb.	.40	—
Xylenol fraction b.r 7°-9° C., dry above 227° C., dms., c.l., same basis	gal	1.25	—
dms., l.c.l., same basis	gal	1.30	—
tanks, same basis	gal.	1.05	—
b.r. 7°-9° C., dry at or below 227° C., dms. c.l., same basis.	gal.	1.35	—
Xylenol fraction, b.r 7°-9° C., dry at or below 227° C., dms., l.c.l. same basis	gal	1.40	—
2,4-Xylidine, tech., dms. frt. alld	lb.	1.15	—
2,5-Xylilline, tech. dms., frt. alld.	lb	1.20	—
Xylidines, mixed o-m-p, dms., c.l., or t.l., works	lb	.39	—
dms., l.c.l. same basis	lb	40	—
tanks, same basis	lb.	.38	—

XYLOL

Xylol quotations, both coaltar and petroleum, may be found under Xylene

Y

Yara yara oil, cns.	lb	2.15	3.05
Yeast, brewers, debittered, USP XV Saccharomyces dlvd primary, USP XV, 150 meg. B_1 per gram, 100-lb. dms	lb.	27	—
USP XV, 270 meg. B_1 per gram 100-lb dms	lb.	.47	—
Yeast, brewers, primary USP XV, 300 meg., B_1 per gram, 100-lb. dms	lb.	52	—
Yeast, brewers, USP XV, 900 meg. B_1 per gram, 100-lb. dms.	lb.	.60	—
Torula, USP. dlvd.	lb.	.18	—

YELLOW PIGMENTS

Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow

Yerba santa leaves, bls.	lb.	.40	.45
Ylang Ylang oil, Bourbon, bots.	lb.	7.00	22.00
extra, bots.	lb.	24.00	33.00
Yohimbine hydrochloride, bots., tins.	oz.	3.75	4.25

Z

Zein, 50-lb. bgs., c.l., t.l., f.o.b. works	lb.	.37	—
50-lb. bgs., smaller lots, f.o.b. works	lb.	.41	.44
Zinc acetate, NF, VIII, dms	lb.	.53	—
Tech., dms., l.t.l., works	lb.	.2950	—
Zinc borate, bgs. 1,000 lbs or more, works	lb.	.25	—
bgs. less than 1,000 lbs., same basis	lb.	.27	—
Zinc chloride, NF, gran., dms	lb.	.42	—
NF precip., powd., dms	lb.	.26	—
Tech., soln., 50%, dms., c.l., works 100 lbs.		5.80	—
dms., l.c.l., works 100 lbs.		6.40	—
tanks, works 100 lbs.		5.15	—
fused, dms. c.l., works 100 lbs.		10.70	—
dms., l.c.l., works 100lbs.		11.20	—
Zinc Chloride, tech. gran., fib. dms., c.l., works 100 lbs.		11.45	—
fib dms. l.c.l. works 100 lbs.		11.95	—
Zinc chromate bbls., dlvd.	lb.	.29	—
Basic bbls., dlvd.	lb.	.34	—
Zinc cyanide dms., 1,000-lb. lots or more, works	lb.	.55	—
dms. smaller lots, works	lb.	.57	—
Zinc dust coml. bbls., c.l., works.	lb.	.16	—
Pigment, bbls., c.l., works	lb.	.15½	—
bbls., l.c.l., works	lb.	.17¼	—
Zinc fluoride, bbls. works	lb.	.49	.50
Zinc hydrosulfite, dms., c.l., frt. alld	lb.	.21½	—
dms. l.c.l. frt. alld.	lb.	.23½	—
Zinc metal, prime western, slabs, E. St. Louis	lb.	.11½	—
Prime western slabs, New York.	lb.	.12	—
Zinc naphthenate liq 8% Zn., dms., frt. alld	lb.	.27	—
10% Zn., dms, frt. alld	lb.	.33	—
Zinc nitrate, tech., flake, 100-lb. fib. dms., l.c.l.	lb.	.16½	—
300-lb. fib. dms, l.c.l.	lb.	.14½	—
500-lb fib dms., c.l.	lb.	.14	—
Zinc oxide pigment, American process, lead-free bgs., c.l., f.o.b. works	lb.	.12½	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.13	—
bgs., l.c.l., smaller lots, same basis	lb.	.13½	—
Zinc oxide, leaded, 35%, bgs., c.l., mills, f.o.b. works	lb.	.14	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.14½	—
pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis.	lb.	.14½	—
Zinc oxide, pigment, French process, green seal, bgs., c.l., f.o.b. works	lb.	.14½	—
bgs., l.c.l. 10 tons or more, same basis	lb.	.15	—
Zinc oxide, French process, green seal, bgs., l.c.l., smaller lots, same basis	lb.	.14½	—
red seal, bgs., c.l., same basis.	lb.	.14½	—
Zinc oxide, French process, green seal, bgs., l.c.l., 10 tons or more, same basis	lb.	.15	—
bgs., l.c.l., smaller lots, same basis	lb.	.15	—
Zinc oxide, white seal, bgs., c.l., same basis	lb.	.14¾	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.15½	—
bgs., l.c.l., smaller lots, same basis	lb.	.15¾	—
Zinc oxide, USP dms., c.l., frt. alld.	lb.	.16	—
dms., l.c.l., 10 tons or more, same basis	lb.	.16½	—
dms., l.c.l., smaller lots, same basis	lb.	.17	—
Zinc phenolsulfonate, NF, gran., dms	lb.	.45	.46
NF, powd., dms.	lb.	.48	.49
Zinc resinate, precip. 7.2-7.6% Zn., dms., frt. alld	lb.	.45	—
Zinc silicofluoride dms. works	lb.	12½	.14
Zinc stearate, USP, ctns., c.l.	lb.	.41	—
	lb.	.41	—
ctns. l.c.l	lb.	.42	.46
Zinc sulfate, powd., monohydrate, 36% Zn. bgs. c.l. dlvd.E 100 lbs.		8.00	—
bgs., l.c.l., dlvd. E. 100 lbs.		9.00	—
Zinc sulfate in bbls 40c higher.			
Zinc sulfide pure bgs. c.l. dlvd	lb.	.2530	—
Zinc undecylenate, 75-lb. fib. dms., f.o.b. works	lb.	2.04	—
Zinc, yellow (see Zinc chromate)			
Zinc-ammonium chloride, bgs., c.l., works 100 lbs.		10.25	—
bbls., c.l., works 200 lbs.		10.85	—
bbls., l.c.l. works 100 lbs.		11.35	—
Zinc-formaldehyde sulfoxylate, basic, 300-lb dms., frt. alld	lb.	.26	—
Normal, 250-lb. dms., frt. alld	lb.	.55	—
Zircon (G) gran. bgs. c.l. works.	lb.	.03½	—
Zircon (G) gran., bgs., 5 tons to c.l., works	lb.	.03¾	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04	—
bgs., smaller lots, works	lb.	.06½	—
Zircon (G) milled, bgs. c.l. works.	lb.	.04½	—
bgs., 5 tons to c.l., works	lb.	.04¾	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04¾	—
bgs., 500-1,999-lb. lots, works	lb.	.07½	—
Zircon (G) in barrels 1c. higher.			
Zirconium acetate soln., 13% ZrO_2, dms. c.l. 30,000 lbs. min., works	lb.	.23	—
Zirconium hydride powd. electronic grade, dms., works	lb.	14.00	15.00
Zirconium oxide, CP, white, grd., bbls or bgs. works	lb.	1.50	—
Electric-fused lump, bgs. 500 to 1,999-lb lots, works	lb.	.48½	—
bgs., smaller lots, works	lb.	.51	—
milled, bgs. c.l., works	lb.	.62	—
bgs., 5-ton lots, works	lb.	.62½	—
bgs., 1-ton to 9,999-lb. lots, works	lb.	.63½	—
bgs., 500 to 1,999-lb lots, works	lb.	.64	—
bgs. smaller lots, works	lb.	.66	—
Glass polishing grade, 94-97% ZrO_2, bgs., works	lb.	.55	.65
Opacifier grade 85-90% ZrO_2 bgs.,	lb.	.27	.50
Stabilized oxide, 91% ZrO_2, milled, bgs	lb.	.62	.85
Zirconium oxychloride, cryst., ctns., 5-ton lots, works	lb.	.37½	—

OPD Reports From Europe

Esso (BTX), ICI (Maleic) Slate Plants

—*Continued from page 7*

produce phthalic anhydride via the orthoxylene route. It will have an initial yearly capacity of 15,000 tons.

ICI's backward integration move at Wilton involves the construction of a refinery capable of distilling a million long tons or crude oil annually. Naphtha needs at Wilton: about 600,000 long tons annually.

Esso's Dutch aromatics project dwarfs the aromatic expansion of French Esso. The French company will add 28,000 metric tons of orthoxylene, 16,000 tons of paraxylene and 10,000 tons of aromatic solvents capacity to its petrochemical complex next to the Port Jerome refinery on the Seine River.

French Esso expects to have this aromatics unit producing for the European market by the first half of next year.

Esso Plans to Market Immediately

Esso Nederland plans to market aromatics immediately using limited quantities made available to it from other Esso manufacturing plants in Europe and the US. Esso and several other international oil companies have refineries around Rotterdam, which is the largest oil port in Europe.

ICI recently announced its intention to build a $280 million petrochemical complex there to tap the Common Market.

But Standard Oil Company of California—through California Chemical Company—is also entering Europe's aromatics market with a rush.

Associated with British Petroleum Company, it is involved in a $19.5 million project to build aromatic hydrocarbon plants in Kent, England and in Dinslaken, West Germany.

The Kent plant will supply Grange Chemicals (owned equally by British Petroleum, California Chemical and Distillers Company, Ltd.) with the orthoxylene it needs for its phthalic anhydride facility.

California Chemical also figures in a French aromatics venture. Working with Antar Petroles, a French refining firm, it will produce paraxylene at a petrochemical complex near Sainte-Nazaire.

Demand for aromatic intermediates is rising rapidly in Europe because of their application in the manufacture of plastics, synthetic fibers, detergents, resins and insecticides. At present, much of this demand is being met from coaltar raw materials.

With its giant petrochemical plant at Rotterdam, Esso Nederland will be able to sell not only to the Common Market but to the Scandanavian countries and Great Britain as well.

Britain's Maleic Producers

Its Wilton venture will make ICI Britain's third producer of maleic anhydride. The others: Monsanto Chemicals, Ltd., with a 15,000-ton-a-year plant in Wales, and Alchemy, Ltd., which turns out about 4,000 tons of maleic annually for captive use.

The butene oxidation process to be employed by ICI at Wilton is similar to maleic anhydride processes developed by Petro-Tex Chemical Corporation in the US and Farbwerke Hoechst in West Germany.

Besides a trio of domestic competitors on phthalic (ICI, Monsanto and United Coke & Chemical Company—all of whom make their PA from coaltar naphthalene), Grange Chemicals will be confronted by some new French capacity. Cie. de Saint-Gobain is doubling its phthalic anhydride capacity to reach more than 30,000 metric tons by mid-1962.

Additives: Want Time?

—*Continued from page 7*

that the substance is not a food additive or to submit a petition for an appropriate regulation to the Food & Drug Administration. Do not include any estimated time for processing a petition by FDA. While the statute includes a cut-off date of June 30, 1964, it is expected that only in a limited number of cases will the effective date be extended that long.)

• Requests for extension may be submitted by any interested person who has the necessary facts, whether or not he obtained or requested the extension previously.

• Any extensions granted beyond January 1, 1962, will be conditioned upon a requirement that the commissioner be supplied with progress reports at six-month intervals. Failure to submit such progress reports will be grounds for termination of any extension granted.

• If any of the information described in this section is included in petitions for food additive regulations already submitted to the commissioner, this information may be incorporated by reference.

• Decisions on requests for further extensions, including the amount of time for which each extension is granted, will be published in the *February Register*. All requests for extensions should be addressed to the Commissioner of Food & Drugs, Food & Drug Administration, Washington 25, D. C.

Drug Makers in for Kefauver-Celler Surprise

—*Continued from page 5*

tion bill of last year (S 3815) and has been expected to recommend it to the new congress for passage.

FTC, on the other hand, is now headed by the former chief counsel of the Kefauver committee—Paul Rand Dixon—who participated in the drafting of the Kefauver-Celler bill, at least in its early stages.

The all-embracing sweep of the bill to take in over-the-counter manufacturers, as well as the ethical drug producers, develops from the confusion surrounding the bill's definition of the term "drug."

How Is 'Drug' Defined?

In the first and second sections relating to the antitrust laws which make reference to patents, the bill adopts the definition of the term "drug" used in section 201 of the federal food, drug and cosmetic act, which includes drugs of all kinds.

Yet in the third section of the bill, which amends the patent laws to provide for compulsory licensing, the bill seeks to limit the definition to prescription drugs. In other sections, the bill speaks of "any drug" and "prescription" drugs.

Industry spokesmen are willing to believe that it was never intended that the bill should embrace all drugs that the confusion about the definition is the result of faulty draftsmanship.

They expect that this matter will be cleared up before the bill is ever presented to either house for action. But, they report, this is but one part of the confusion that will result in the drug industry if the bill is enacted.

The bill, among other things, seeks to limit the life of a patent monopoly in prescription drug manufacture to a maximum of three years from the date of filing the patent application, by requiring the owners of patents to issue licenses to manufacture their discovery to any "qualified" manufacturer who makes application for a license.

A "qualified" manufacturer would be anyone duly licensed by the Secretary of HEW to manufacture drugs.

In this connection, the definition of the term "drug" becomes of major importance it is pointed out. Often a drug manufacturer does not know when he applies to the Food & Drug Administration for an effective new drug application, whether the drug will be limited to sale only on prescription or whether it can be sold over-the-counter.

17 Years or 3 Years for Monopolies?

Thus, the question whether manufacturer can enjoy the full seventeen-year patent monopoly or must license others to produce the drug after three years, depends upon whether FDA rules his product to be a prescription item or not.

Another point that is bound to cause difficulty, should the bill become law in its present form, is this: What happens in the case of prescription drugs which are later taken off the prescription-only list and assigned for over-the-counter sale?

By law, the FDA is required to put drugs on over-the-counter sale whenever it is demonstrated that they can be used safely by the public upon being labeled with adequate directions. Are the involuntary licenses issued by the patent holder to remain in force in such cases, even though the drug no longer fits the definition contained in the bill?

Chlorine Demand Uptrend Threatens To Produce Surplus of Caustic Soda

The gap between chlorine and caustic soda output narrowed appreciably last year, and as the trend continues into 1961, one of the industry's long-range problems comes into focus: What will happen when chlorine demand moves out in front and stays there? Prodding chlorine into the lead are a broad spectrum of "building-block" outlets—polyvinyl chloride resins and the chlorinated hydrocarbons. These represent dynamic markets which are growing faster than the overall population. In contrast, caustic soda's strong points—inorganic chemical outlets and cellulosics—can not be expected to expand much more than the 3 percent yearly represented by population growth. Cellophane may do a little better than this, but rayon, the way it's been going, is likely to lose ground.

The turning point will come in 1964, according to one industry projection. Demand for both chemicals that year is seen at six million tons. Since all chlorine is produced electrolytically—meaning an equal amount of co-product caustic output—whatever caustic is produced by the lime-soda method in 1964 would be excess to the total demand.

What's more, chlorine's edge could continue to increase by as much as 100,000 tons yearly, as it did in 1960. The projection mentioned above pegs the growth rate differential as 75,000 tons yearly in chlorine's favor.

A brief look at other caustic end-uses discloses no "sleeper." Pulp and paper consumption may very well double by 1964. But it will also have doubled for chlorine, which has been profiting by the increased demand for bleached paper.

Paper Production Higher

The American Paper & Pulp Association reported paper production for the week ended April 15, at 93.8 percent of theoretical capacity, as compared with the revised figure of 88.9 percent for the previous week and 96.2 percent for the corresponding week of last year.

Soap and detergent outlets look bearish. The switch is to liquid detergents, and this means that potassium compounds should gain increasing ascendency over caustic soda-derived materials. Caustic will be lucky to hold its own in this business.

Time was when exports comprised a handy lever for keeping a domestic market in balance. But today, caustic soda producers concede they'll have to move fast to hold exports at their current 200,000-ton-a-year level.

For whenever demand really begins to look good—as it now does in South America—a local chlor-alkali unit can be expected to come along and spoil the fun.

The possibility of an important new use for caustic soda is a remote one, trade sources concede. Most new applications, and there are many of them, fall into the obscure and small-tonnage miscellaneous category.

What makes the impending problem look particularly acute today is the gradual eclipse of the lime-soda method. In the days when the latter contributed a fair volume of caustic soda output, it could be forced to give ground whenever electrolytic operations expanded, thus offsetting the increase in production.

If, as producers here in the east insist, Solvay process soda ash threatens to be in short supply within the next few years unless new plants are built, carbonation of caustic soda may provide the answer for both problems.

While such an answer would be less than satisfactory today, it may look more attractive over the years. Today bulk soda ash costs $1.60 at the works, as compared with $2.90 to $3.10 for caustic soda.

But construction of new Solvay plants would entail a higher price for ash, while a continuing expansion of electrolytic operations based on chlorine demand would tend to soften caustic prices.

Thus, as the price differential narrowed, synthetic ash would emerge as at least a last-ditch outlet for the excess caustic.

Price Trends

Advanced

Cadmium chloride, 7½c. per lb.
Nitrate, 3c. to 5c. per lb.

Reduced

Tin metal (Straits) 1c. per lb.
Salts, ½c. to ⅝c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	April 22, 1960
106.86	106.86	106.81	106.88

For Current Prices See Page 11

Acids

Boric—Glass-fiber business has begun a seasonal pickup, imparting a strong tone to boric acid sales. Supplies of the acid are ample and additional output has been scheduled by one producer for early summer. Steady prices are anticipated for the balance of the year.

Hydrofluoric—Movement against government contracts continues strong; industrial chemical accounts also show an active tone as the spring season gains momentum. Prices of hydrofluoric have been long unchanged, and the tone is steady.

Hydrochloric—Last week's upturn in steel output brought promise of welcome relief to this acid, but it was too early for the effects ot be directly felt. Current prices are no stronger than they have been over the past year, but no weaker, either, trade sources report.

Nitric—Increased buying interest is noted, but the acid isn't expected to show satisfactory balance until steel's production gains are consolidated and the industry's operations reach at least 70 percent of capacity.

Bases and Salts

Cadmium Salts—Prices of this group have been raised to reflect the recent 10-cent boost in cadmium metal.

Under the new schedule, cadmium chloride in drums is quoted at $1.56½ per pound, up 7½ cents; nitrate in less than 5,000-pound lots at 94 cents, up 5 cents; and 90 cents for larger quantities, up 3 cents. Oxide is unchanged, but sulfate is newly quoted at $1.71.

Soda Ash—The alkali is in good demand by glass makers who are preparing to meet seasonal upswings in demand from the beverage trade and the construction industry.

The sensitive profit position of glass makers—who are troubled by the competition of plastic containers and imported sheet glass—is thought to be one of the factors contributing tothe unsatis factory cost-price position of soda ash.

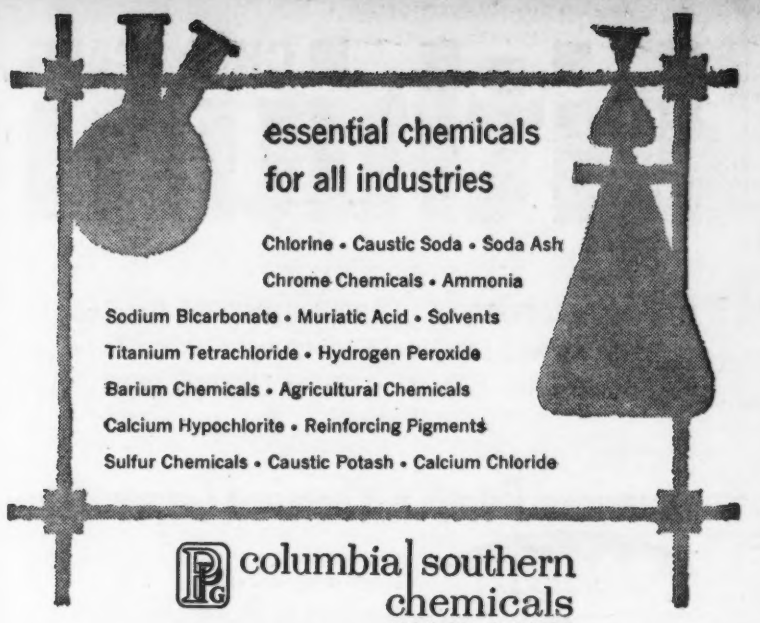
Nonferrous Metals

Copper—Crude primary production in the US in March totaled 97,276 tons, up from 90,154 in February, the Copper Institute reports. Secondary output was 11,142 tons, up from 7,528. Refined output rose sharply to 151,833 tons from 134,812; and deliveries also gained, totaling 111,924 tons, as against 93,029 tons in February.

Month's end brought a welcome reduction in US stocks—down to 139,562 tons from 147,799.

The copper picture outside the US was less favorable, according to the Institute's figures. Stocks rose to 336,167 tons from 310,052 the month before.

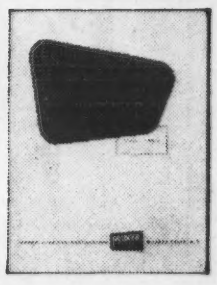
Crude primary output outside the US totaled 215,566 tons, up from 190,499. Secondary output was 2,126 tons, up from 1,648. Refined output totaled 187,220 tons, up from 169,725, and ship-


essential chemicals
for all industries
Chlorine • Caustic Soda • Soda Ash
Chrome Chemicals • Ammonia
Sodium Bicarbonate • Muriatic Acid • Solvents
Titanium Tetrachloride • Hydrogen Peroxide
Barium Chemicals • Agricultural Chemicals
Calcium Hypochlorite • Reinforcing Pigments
Sulfur Chemicals • Caustic Potash • Calcium Chloride
columbia | southern chemicals
CHEMICAL DIVISION
PITTSBURGH PLATE GLASS COMPANY
ONE GATEWAY CENTER PITTSBURGH 22, PENNSYLVANIA

Salt Cake

F. H. Ross & Co.
MUrray Hill 2-7136
155 E. 44th Street • New York 17, N. Y.
EXpress 2-2121
3930 Glenwood Drive • Charlotte, N. C.

TRI CHLOR BOOK



COVERS: Unloading, handling, storing. Physical and chemical properties. Theory and application of stabilizers. Safety precautions. Lengthy section on vapor degreasing with basic cycles, equipment and methods. Write for a copy.

Nialk® Trichlorethylene available in drums, tank trucks, and tank cars.

HOOKER CHEMICAL CORPORATION
804-4 FORTY-SEVENTH STREET, NIAGARA FALLS, NEW YORK
SALES OFFICES: BUFFALO CHICAGO DETROIT LOS ANGELES NEW YORK NIAGARA FALLS PHILADELPHIA TACOMA WORCESTER, MASS.
IN CANADA: HOOKER CHEMICALS LIMITED, NORTH VANCOUVER, B. C.
HOOKER CHEMICALS PLASTICS

Lithium CHEMICALS

LITHIUM CARBONATE • LITHIUM HYDROXIDE Monohydrate
LITHIUM BRINES Lithium Chloride and Lithium Bromide
BIKALITH® Lithium Ores • Other LITHIUM CHEMICALS

American Potash & Chemical Corporation

TRONA®

3000 WEST SIXTH STREET, LOS ANGELES 54, CALIFORNIA
99 PARK AVENUE, NEW YORK 16, N. Y.

Manufacturers of

Red and Black **COPPER OXIDE**

COPPER SCALE

ROBERT A. COUPE, 260 Rhode Island Ave., PAWTUCKET, R. I.
Telephone PAwtucket 3-4944

PASCo PASCo PASCo PASCo PASCo PASCo PASCo PASCo PASCo PASCo

Producers & Marketers of Crude Sulphur

... with mining operations in Jaltipan, Veracruz, Mexico, and principal offices in Houston.

Pan American
SULPHUR COMPANY

609 BANK OF THE SOUTHWEST BUILDING HOUSTON, TEXAS

CUPROUS CHLORIDE

HENRY BOWER CHEMICAL MFG. CO.
30TH AND GRAYS FERRY RD. PHILADELPHIA 46, PENNA.

Key Chemicals from Wyandotte...

Caustic Soda

Liquid grades (50% and 73%) are shipped in lined tank cars . . . anhydrous grades (solid, flake, crystal, and Flo-chilled®) in standard or open head non-returnable drums.

Wyandotte Chemicals Corporation, Michigan Alkali Division
Wyandotte, Michigan • Offices in principal cities

CHEMICALS

WYANDOTTE

Heavy Chemicals

ments also rose, totaling 208,932 tons as against 192,854 in February.

Silver—Quotations have been long unchanged at 91⅜c. a troy ounce, spot.

Tin—Straits metal continued to command higher prices, closing on Friday at $1.08 a pound, spot basis.

Heavy Chemical Briefs

DOW TECHNICAL AID: A technical service and development group has been set up in Dow Chemical Company's new metals department. The group will be headed by John G. Mezoff, who is transferring from Dow Metal Products Company, a Dow division. Initial emphasis will be on magnesium die casting, especially for automotive applications.

METAL HYDRIDES AGENT: Metal Hydrides, Inc., Beverly, Mass., has appointed William A. Phillips, Inc., as sales agent for all products in the states of Minnesota, Wisconsin, Michigan, Ohio, Illinois and Indiana. The Phillips organization will also provide technical service, backed by the laboratory and technical staff of Metal Hydrides.

RADIATION SHIELD-PATENT: A patent has been issued to American Smelting & Refining Company for the design of an interlocking lead brick for use in the construction of temporary and permanent nuclear radiation shelters. The special configuration of the brick is said to permit easy and rapid construction of shielding with standard materials.

TAR-BONDED REFRACTORIES: A new facility for production of special tar-bonded refractories for use in the basic oxygen steel making process has been started up at Columbiana, Ohio. The plant, operated by Kaiser Refractories & Chemicals Division of Kaiser Aluminum & Chemical Corporation, will market its products in the east and central US.

Antara Is in a New Field

—Continued from page 4

water-emulsion polymers as it offers dye receptivity, unusual emulsion stability, excellent adhesive properties and unique film-forming properties.

Some of the applications for these products will be in the adhesives field, where they will bond diverse materials to each other. Additional adhesive uses will be found in textile coating, paper coatings and glass fiber sizes.

The company points out that their superior dye receptivity makes them highly desirable as non-woven fiber binders and latex rug backings. Since these new film formers are tough as well as adhesive, evaluation as surface coatings—particularly as metal primers and top coatings for wood—is indicated.

Antara also feels that they have considerable potential as acid-stable detergent pacifiers and as aerosol starch resins.

While currently available in development quantities only, Antara intends to make tankcar quantities available before the end of the year.

Water Pollution Bill

—Continued from page 5

single project was increased from $250,000 to $800,000, and a sliding scale formula was substituted for the present 30 percent limitation.

- A ceiling of $2.4 million was placed on grants for joint projects serving more than one municipality.
- Grants to states and interstate water pollution control programs were increased from $3 million to $5 million, and the time limit on such grants was extended to June 30, 1971.
- Responsibility for administration of the federal pollution control program was transferred from the Surgeon General to the HEW Secretary.

Hitchcock Offers Brochure

Lauren B. Hitchcock Associates, New York, has just issued a new brochure describing the organization's technical services available to the chemical industry. Copies are available on request to the management consultants at 60 East 42nd street, New York.

PRODUCT MANAGER: William J. Delany, appointed by Metalsalts Corporation, Hawthorne, N.J., to be product manager for all "Metasol" chemicals distributed to the paper industry.

Maleic Anhydride Shipped From New Oronite Plant

Oronite Division of California Chemical Company, a subsidiary of Standard Oil Company of California, has just shipped the first order of packaged maleic anhydride from its new plant in Richmond, Calif.

The facility, now completely onstream, is reportedly the first constructed in the west to manufacture maleic anhydride. The initial shipment of 30,000 pounds was trucked to an Oronite customer in the west. Also, several carloads were shipped to the eastern part of the United States for distribution to Oronite customers in that section of the country.

Construction of the new multi-million dollar plant was started in March, 1960.

The new plant, built by Badger Manufacturing Company, Cambridge, Mass., has the capacity to produce 20 million pounds of maleic anhydride a year, in both molten and briquette form.

When you use SMITH-DOUGLASS

POTASSIUM SILICOFLUORIDE

Increased production means continual, uninterrupted shipments – 12 months a year

3 Production points to serve you:
NORFOLK, VA. – PLANT CITY, FLA.
STREATOR, ILL.

KAWECKI CHEMICAL CO.
220 East 42nd Street, New York 17, N. Y.
Telephone MUrray Hill 2-7143

Exclusive Sales Agents For
SMITH-DOUGLASS CO., INC.
5100 Va. Beach Blvd., Norfolk, Va.
LARGEST PRODUCER OF KSF IN THE U.S.A.

SODIUM SULPHATE ANHYDROUS

Our 94th Year
E. M. SERGEANT PULP AND CHEMICAL CO., INC.
7 DEY STREET NEW YORK 7, N. Y.

Obituaries

Carl Otto Anderson

Carl Otto Anderson, president of Ozark-Mahoning Company, Tulsa, Okla., died April 13 in that city. He was sixty-five years of age.

Mr. Anderson joined Ozark-Mahoning thirty-five years ago. He headed up the company's research operations before being named a vice-president in 1947. Six years later he was named president of Ozark-Mahoning.

Joseph H. Brennan

Joseph H. Brennan, chief metallurgist of Union Carbide Metals Company, a division of Union Carbide Corporation, and holder of several patents in chemistry and metallurgy, died April 19 in Niagara Falls, N. Y. He was fifty-eight years old.

Mr. Brennan gained wide recognition for his research in the production of alloys with a low carbon content.

Peter A. Dirr

Peter A. Dirr, a founder and retired vice-president of Charles L. Huisking & Co., New York, died April 19 in that city. He was seventy-two years old. At the time of his retirement in 1955, Mr. Dirr had completed fifty-three years in the chemical industry.

Thornton F. Holder

Thornton F. Holder, director of research for Diamond Alkali Company, Cleveland, Ohio, died April 16 in that city. He was fifty years old.

Karl W. Koeniger

Karl W. Koeniger, retired leather and plastics executive, died April 16 in West Orange, N. J. He was sixty-seven years old.

At his retirement in 1958, Mr. Koeniger was president of Hackettstown Tanning Company, Hackettstown, N. J., vice-president and director of Blanchard Brother & Lane, Newark, N. J., and president of Kalistron, Inc., makers of vinyl sheeting, Louisville, Ky.

H. K. Clark, president of Carborundum Company from 1947 to 1952 and a member of its board from 1946 to 1959, died April 12 in Washington, D. C. His age was seventy-one.

Ralph G. Harder, executive of Asiatic Petroleum Corporation (Shell Group), New York, died April 15 in that city. His age was fifty-seven.

Edward P. Snyder, senior partner in the firm of Moore & Munger, exporters, importers and distributors of clays and waxes, New York, died April 19 in that city. He was seventy-one years old.

Dr. Marshall R. Warren, director of pharmaceutical research and development for Warner-Lambert Pharmaceutical Company, Morris Plains, N. J., died April 15 in Morristown, N. J. He was fifty years old. Dr. Warren joined Warner-Lambert two years ago after serving as director of pharmacology for Mead-Johnson Company, Evansville, Ind.

Look to BECCO first for

Ammonium Persulfate
Potassium Persulfate

as well as

• Hydrogen Peroxide
• Peracetic Acid • Sodium Perborate
• and other Peroxygen Chemicals

Write for list of free technical bulletins.

BECCO Chemical Division
Food Machinery and Chemical Corporation
161 East 42nd Street, New York 17, New York

HEXACHLOROETHANE

AMERICAN FIRSTOLINE CORP.
855 AVENUE OF THE AMERICAS
NEW YORK 1, N. Y.
Phone: OXford 5-6556
Cable Address: FIRSTOLINE, N. Y. • TWX: NY1-2765

"Mississippi Lime Company's Precipitated Calcium Carbonate meets our needs exactly"

Processed from limestone that uniformly tests 99% pure calcium carbonate. All grades and densities of Precipitated Calcium Carbonate U.S.P. and Technical. Immediate shipment.

See our specifications in Chemical Materials Catalog

MISSISSIPPI LIME COMPANY
ALTON, ILLINOIS

CLIP THIS AD TO LETTERHEAD FOR CATALOG OF SODIUM

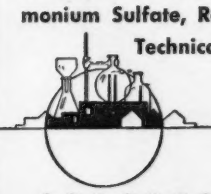
PHOSPHATES and other Blockson Chemicals

BLOCKSON

BLOCKSON CHEMICAL COMPANY • Chemicals Division • Olin Mathieson Chemical Corporation • Joliet, Ill.

AMMONIUM COMPOUNDS available in tonnage quantities

Ammonium Bisulfate, Purified • Ammonium Bisulfite, Purified • Ammonium Sulfate, Reagent & Purified • Ammonium Sulfide, Reagent & Technical • Ammonium Thiosulfate, 60% Solution



HEICO, INC.
MANUFACTURERS OF FINE CHEMICALS
STROUDSBURG • PENNSYLVANIA

Phibro

INDUSTRIAL CHEMICALS

a new source for

DICYANDIAMIDE
MELAMINE

Available for immediate delivery at all times . . . . from warehouse stocks, at attractive prices.

for textiles

CAUSTIC SODA • SODA ASH
ALL PHOSPHATES • ACETIC ACID
GLAUBER SALT
SODIUM HYDROSULPHITE
BICHROMATE OF SODA
SODIUM PERBORATE • UREA

IN TANK CAR, TANK WAGON, CARLOAD DRUMS OR BAGS AND LESS CARLOADS DRUMS OR BAGS

HOLBROOK, MASS.
BOSTON 10, MASS.
MIDDLETOWN, CONN.
PROVIDENCE 3, R. I.
PHILADELPHIA 6, PA.
BALTIMORE 1, MD.
CHICAGO 1, ILL.

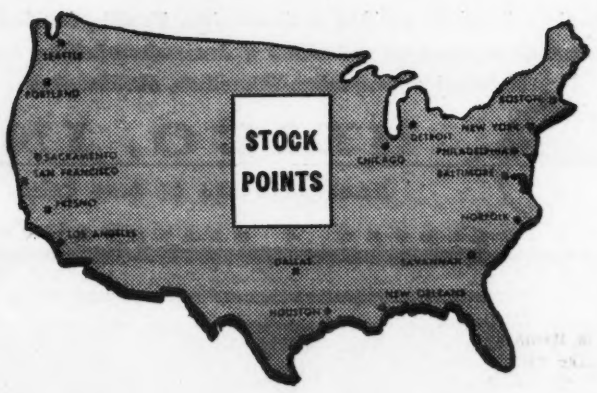
Philipp Brothers Chemicals, Inc.
COLISEUM TOWER BUILDING
10 COLUMBUS CIRCLE · NEW YORK 19, N. Y. · JU 6-6020
Cable Address PHIBROCHEM NEW YORK

Caustic Potash, All Grades
Copper Sulphate

Glycerine C.P., U.S.P.
Chloroform, Tech. & U.S.P.

J.F.HENRY CHEMICAL CO., Inc.
4 Station Square, Rutherford, N. J.
N. J.: WEbster 9-7100 • N.Y.: BRyant 9-7283

CMC



IMPERIAL CHEMICAL INDUSTRIES LIMITED

Ammonium Chloride, Grey and White • Ammonium Bicarbonate USP • Ammonium Carbonate • Bleaching Powder Tropical 34%-36% Cl, • Calcium Formate • Chlorinated Rubber • Copper Cyanide • Potassium Cyanide • Sodium Cyanide, all grades • Zinc Cyanide • Sodium Aluminate • Sodium Bicarbonate USP and Tech. • Sodium Carbonate Monohydrate • Sodium Perborate • Trichlorethylene, all grades • Urea, 46% Tech. • 3,5,5 Trimethyl Hexanol • 2:4 Dimethyl 6-Tertiary Butyl Phenol • Hexachloroethane

PETER SPENCE & SONS LIMITED

Aluminum Sulphate, Iron Free • Ammonia Alum • Butyl Titanate • Potassium Alum • Titanium Potassium Oxylate • Cobalt Molybdenum Catalysts

DEEPWATER CHEMICAL CO., LIMITED

Iodine, Resublimed USP and Reagent * Potassium Iodide, USP and Reagent * Potassium Iodate, USP and Reagent * Special Potassium Iodide Mixtures * Cuprous Iodide, Tech. * Sodium Iodide

LCL quantities available from Distributor Stocks in your area. This is only a partial listing of the items we offer. Write for complete product listings.

CHEMICAL MANUFACTURING CO., INC.
444 Madison Ave. • New York 22, N. Y.
714 West Olympic Blvd. Los Angeles 15, Calif.
114 Sansome Street San Francisco 4, Calif.

Detergent Sales Survey Shows Industry Use Up

In the first comprehensive survey of industrial detergent sales, Chemical Specialty Manufacturers Association reports 1959 sales at 173.6 million pounds of dry products.

This compares with 164.6 million pounds in 1958, according to CSMA, which conducted the survey through its detergents and dry cleaning compounds division. Sixty-four companies provided data on which the figures were based.

Sales of liquid cleaners were reported in excess of 8.4 million gallons in 1959 as against 7.3 million in 1958.

Machine dishwashing compounds accounted for the largest portion — about 25 percent—of the dry products. More than 42 million pounds of the total represented an increase of some 5 percent over 1958.

Among sales of liquid products, industrial wall and floor cleaners accounted for about 50 percent of total sales with more than 4.3 million gallons reported.

Alkali: Pricing Target

—Continued from page 3

tions to bid on soda ash, have turned them over to the government. All the offerings are believed to have been at or near the same price.

In New York, State Attorney General Louis J. Lefkowitz, charging that nine companies had illegally fixed the price of chlorine, got the following concerns to agree to stop the alleged practice (OPD, 1/2/61):

Allied Chemical Corporation; Hooker Chemical Corporation; Jones Chemicals, Inc.; Monarch Chemicals, Inc.; Eastern Chemicals, Inc.; Collier Chemicals, Inc.; S. H. Ireland Chemical Company; Stedford Chemical Corporation, and Slack Chemical Company.

In this case, the state government charged price-fixing among the companies on liquid chlorine delivered to New York State and municipalities under the Donnelly act, the state's antitrust law.

Defendants Named

Defendants in the California price-fixing action are John Wiley Jones Company (the western division of Jones Chemicals, Inc.) and Tops Chemical Company. Both are packagers and distributors of liquid chlorine.

Chemical producers are keeping mum for the present, but early sketchy reports out of Philadelphia indicate that the federal alkali probe cuts clear across the industry—from major producers right down to jobbers.

Apparently, what the Justice Department would like to know is this: How is it that three or more chemical companies, in seeking state and municipal alkali contracts, can submit identical bids on the same piece of business?

Alkali producers have been saying for a long time that they submit bids merely at the going prices for the chemicals. While this makes for identical bidding in many cases, it's pointed out that this has nothing to do with collusion to fix prices.

How Low the Soda Ash Price?

In the case of soda ash, one source recently told OPD that "it's hardly likely the price could get much lower than it is now in the face of increased costs. We can't even afford to repair our old plants at the going rate, let alone build new ones."

Dense soda ash has been priced at $1.60 per hundred pounds since 1956. During the period 1956-1960, OPD's price index for all chemicals rose from 107.14 to 108.50

In 1956, John O. Logan, of Olin Mathieson Chemical Corporation, told the American Paper & Pulp Association in a speech of the cost-price squeeze being faced by the soda ash industry. He warned then that something would have to be done in order to offset the steep costs of plant replacement and renewal.

Diamond Alkali Company in virtually every annual report since 1955 has stated essentially the same argument—that costs of constructing new lime-soda-ammonia soda ash facilities and repair and replacement of current plants is prohibitive (OPD, 3/26/56).

US Warned on Patents

—Continued from page 3

pointed out, "but at the advanced position already reached by the contractor.

"In general, invention in the complex areas of today's science requires a long mental soaking in details of the pertinent disciplines. The total term of most government research contracts is so short that only the pre-contract soaking time provides the necessary condition.

"Thus, in most cases, the equities demand that the contractors obtain all those patent rights other than those necessary to the government for its operations."

Ever see yourself as a MAGICIAN?

Others do—especially when you unerringly put your finger on the right source for the right material —all the time. Like specifying Merck for magnesium compounds.

Our Marine Magnesium Division serves the rubber, plastics, paint, ink, drug, cosmetic and chemical industries—and distributors from coast to coast with warehouse stock are prepared to make speedy delivery of any Merck magnesium compound.

So the next time you're puzzled about magnesium compounds you can be sure of getting the grade and quality you need by specifying Merck. And you can look like a magician to boot.

MAGLITE®
Reactive Magnesia
(Syn. Calcined Magnesite)
MAGCARB®
Magnesium Carbonate (Syn. Magnesite)
MARINCO® H
Magnesium Hydroxide N.F.
MARINCO® C
Magnesium Carbonate U.S.P.
MARINCO® O
Magnesium Oxide U.S.P.
MARINCATE®
Magnesium Trisilicate U.S.P.
MERLUM®
Aluminum Hydroxide U.S.P.
Aluminum Hydroxide Paste
(Alumina Hydrate)
HYDRO-MAGMA®
Magnesium Hydroxide Paste
(Syn. Brucite Paste)

For additional information and samples write to Merck Marine Magnesium Division, Merck & Co., Inc., Rahway, N. J.

MERCK MARINE MAGNESIUM DIVISION

MERCK & CO., INC. • RAHWAY, NEW JERSEY
Distributors:
THE C. P. HALL CO. • G. S. ROBINS & CO., INC.
WHITTAKER, CLARK & DANIELS, INC.
VAN WATERS & ROGERS, INC.

Trade Name Chemicals

Food-Grade Antioxidant Sales Now Around $3.5 Million a Year

Sales of food-grade antioxidants are currently estimated at $3.5 million per year, more than three-fourths of which are in phenolic materials. Price considerations make butylated hydroxytoluene the best buy in the market, although it is difficult to point to any one chemical as predominant. Large users, such as the big meat-packers, may buy chemical antioxidants as such and make their own formulations, but for the majority of consumers economics favor purchase of antioxidant formulations from firms specializing in this field. These products may contain all of the recognized antioxidant chemicals plus a metal scavenger or synergist incorporated in propylene glycol, mono- or diglycerides, or vegetable oil to improve solubility in fats.

Standard materials used in food-grade antioxidant products are propyl gallate, butylated hydroxytoluene and butylated hydroxyanisole, but other materials find use depending on the application. Nordihydroguaiauretic acid (NDGA), mixed tocopherols and lecithin also are approved for antioxidant food use.

Thiodipropionic acid and esters have found use in protecting polyethylene and polypropylene film used in food wraps. Producer E. I. duPont de Nemours & Co. reports that the food industry, too, may be a future user of these compounds.

Meat Packers Largest Consumers

Major end-uses are in the meat packing industry, in baked goods, vegetable oils and fats, on dry cereals and in nuts, potato chips and confections. Essential oils and vitamins must often be fortified against deterioration by use of an antioxidant formulation.

Most antioxidant materials have shown a steady growth pattern and trade sources expect a 5-10 percent yearly growth rate based on population increase and more stringent requirements for stability and longer shelf-life in products being marketed today.

As to new products coming into the market, most sources feel there will be few innovations due to the great effectiveness of antioxidants currently available and difficulty in obtaining clearance for use of new materials as food additives.

Biggest developments of recent years have been the approval of BHT for use in foods and production of BHA with good "carry-through."

Major factor in the food-grade antioxidants field is Eastman Chemical Products with the "Tenox" brand. The Kingsport, Tenn., chemical maker manufactures 100 percent butylated hydroxytoluene, butylated hydroxyanisole and propyl gallate products as well as varying concentrations and combinations of all three.

Most "Tenox" formulations are in propylene glycol, but Eastman also makes use of vegetable oil and mono- and diglycerides.

For example, "Tenox 7" is 28 percent by weight BHA, 12 percent propyl gallate, 6 percent citric acid, 20 percent mono- and diglycerides and 34 percent propylene glycol.

Solvent Combination Helps Solubility

The company points out that the different solvent combination increases solubility in fats and oils and has extended use to a wide range of products from edible and inedible fats, to cereals, nuts and Vitamin A.

Eastman's butylated hydroxyanisole, "Tenox BHA" is a standard antioxidant widely used in the food industry. The material is a mixture of two isomers, 3-tert-butyl-4-hydroxyanisole and 2-tert-butyl-4-hydroxyanisole, supplied in crystalline form as well as in the various formulations.

The company points out that BHA was the first government-accepted food grade antioxidant to exhibit substantial carry-through properties in baked and fried foods made with animal fats. "Tenox BHA" also provides good stabilization to Vitamin E, citrus oils, essential oils, paraffin, and polyethylenes.

Griffith Laboratories, Chicago, which pioneered the use of propyl gallate in foods fourteen years ago, is currently offering more than a hundred different antioxidant formulations.

The company reports it has just obtained Food & Drug Administration approval for use of monoglyceride citrate in vegetable fats and oils up to 200 parts per million. Griffith holds a patent on use of this compound in antioxidant formulations.

Trade sources say the compound comes close to being an oil-soluble citric acid, and incorporated in antioxidant formulations, should give propylene glycol-based products a competitive battle in certain items depending on price.

Big sellers for Griffith are the company's antioxidants "G-16" and "G-50." The latter product is 6 percent propyl gallate, 14 percent butylated hydroxytoluene, 8 percent butylated hydroxyanisole and 35 percent monoglyceride citrate with vegetable oil made up to 100 pounds. In most cases, Griffith recommends an antioxidant use concentration of eight ounces per 1,000 pounds of product protected.

The company also has a patented antioxidant salt for use on potato chips and nuts. The product is ordinary salt plus propyl gallate and butylated hydroxytoluene or BHA. The product gives adequate protection when used in concentration of 1-2 percent, the company reports.

Antioxidant Solubility Is Limited

Commercial antioxidants have limited solubility in fats and oils and are hardly soluble at all in water. The secret, sources say, is to find an intermediate compound which will solubilize the antioxidant in the fatty material.

Propylene glycol remains widely used for this purpose since it is a good solubilizing agent. However, it lacks good dispersing properties and there has been a trend to use of other materials which combine solubilizing and dispersing properties.

Nordihydroguaiauretic acid (NDGA) has proved a highly effective antioxidant in products, such as cake mixes, which may require a high degree of protection for extended periods of time.

Under a patent held by the University of Minnesota, W. J. Stange Company, Chicago, is licensed exclusively to market this product. NDGA gives more stability on a pound for pound basis than other antioxidants and produces no discoloration with trace metals. A disadvantage is that it is not as effective at high temperatures and is relatively expensive.

The material is a naturally occuring substance extracted from hardwood creosote and finds major sales outlet in shortenings for cake mixes. It may be used in combination with BHT or BHA. The company uses monodiglycerides as a solubilizing and dispersing agent.

Propyl gallate, an oldtimer on the food additives scene, has continued to find use

—Continued on page 52

2,6-DBPC SALES

1961	*4.8 million lbs.
1960	*4.0 million lbs.
1959	3.2 million lbs.
1958	4.0 million lbs.
1957	2.9 million lbs.
1956	1.5 million lbs.
1955	0.3 million lbs.

*Estimate
Figures are for food grade only.
Source: Tariff Commission

Petroleum Derivatives

Rapid expansion of coin-operated dry cleaning machines employing new cleaning fluids into the retail field is being carefully watched by producers of traditional cleaning solvents. Still in its infancy, the trend to coin-operated machines poses a potential threat to solvent sales that is not being taken lightly by solvent makers. Instead, solvent producers are studying events, and while not pleased by competitive developments they do not view the situation as anywhere near disastrous. Five appliance makers are producing the machines while chemical companies, led by some of the largest, are scurrying to supply cleaning fluids to service the machines.

As one solvent maker describes it, most coin-operated machines are being installed as ancilliary equipment in laundromats, providing one-stop washing and dry cleaning service. Some units are also being installed in existing retail stores, while others are being located in newly-opened shops operated along the lines of laundromats and other self-service establishments.

Most machines are sold to retailers on a ten year chattel mortgage basis. Actual life of the equipment, considering the corrosive effects of the various fluids employed, is a moot point in the minds of some traditional solvent producers. At least one producer puts the normal operating life of the coin machines at closer to five years than ten.

For the consumer, coin machines do appear to offer a bargain if one does not include the cost of pressing and time spent waiting for completion of machine cycles. In one typical setup recently opened in Buffalo, a month-long special was offered—eight pounds of clothes for $1.50—to be increased to $2 after the initial bargain period.

One solvent maker says that the business coin machines will get will come largely from those items consumers generally put off having dry cleaned because of cost, such as drapes, blankets, etc. Clothing will make up a portion of the volume, it's believed, but will be based primarily on a cost factor.

That is, items will tend to be thrown in to make up the eight pounds limit but solvent makers believe the more intricate and difficult cleaning jobs will still reside in the hands of the traditional retail cleaner.

At any rate it should be a year before any conclusive results can be tabulated as to the success of the coin machines and their effect, if any, on traditional solvent sales.

As for the coin machine people, they're already looking to another facet of expansion—retail rug cleaning—a possibility hampered only by the size of existing coin machines.

An eight-day production schedule for crude oil has been set for May for Texas' prorated wells by that state's Railway Commission. Representing a one day reduction from April's quota, the new schedule reduces production by 233,794 b.p.d.

Eight major producers had argued for the eight-day quota in view of mounting petroleum stocks. Only three producers desired maintenance of the nine day quota.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 22, 1960
104.10	104.11	103.74	103.82

For Current Prices see page 11

Aliphatic Solvents

Hexane—Producers report March and April sales figures are tending far downward from last year's results.

Markets are abundantly supplied, particularly the East and Gulf coasts.

Although the supply of hexane exceeds current needs, it does not do so immoderately according to reports.

Best indication that freely-available supply has not weakened the market is that price is remaining firm at longstanding levels.

Rubber Solvent—Prices are generally firm throughout most marketing areas with the natural exception of Akron.

There, competition is greatest because of the concentration of rubber manufacturers and fabricators.

Because of the intense contention for business in Akron prices for RS tend to shade below levels held in other areas.

One RS producer comments that shading of ½c. a gallon is not uncommon in that market.

Quoted contract prices hold at 19c. a gallon, New York and New Jersey, 13875c. a gallon for Group 3 and 155c. a gallon for Houston.

Crude Oil Stocks

Domestic and foreign crude petroleum stocks at the close of the week ended April 8 were 2,058,000 bbls. lower than at the end of the preceding week.

Week ended April 8—241,135,000 bbls.

Preceding week—243,193,000 bbls.

This decrease comprises a decrease of 668,000 bbls. in stocks of domestic crude and a decrease of 1,390,000 bbls. of foreign crude.

(Source: Bureau of Mines)

Waxes

US exporters of wax to South America continue to find the going rather tough these days.

Aside from the loss of one market—Cuba—and the uncertainty of another—the Dominican Republic—there is increasing competition from foreign sources.

In a microcosm the wax export picture is a reflection of the difficulties faced by all US business engaged in world trade—the struggle against foreign competitors who have the advantage of lower costs and secondly the rising self-sufficiency of lands once entirely dependent upon imports for industrial products.

Higher costs for raw materials and labor place US exporters at an immediate disadvantage when competing with foreign exporters such as Japan and Indonesia, for example, whose costs are nowhere comparable to the US.

Then, too, South American countries are coming on with their own wax refineries. Brazil is a case in point.

Current export conditions remain slow according to producers. Attributed in part to a general decline in industrial activity in South America, a reflection of our own recession, the market has been quiet for some months.

It is expected that May will see a return to higher volume in the export trade.

One US exporter does report an increase of business from Chile due, in part it is thought, to the inability of Indonesian refiners to keep up with demand.

In the US domestic market conditions are relatively unchanged. Prices remain stable with no indication of any general increase.

In view of looming competition from other materials, such as plastics, wax producers are banking heavily on the success of the wax coated corrugated box. Slated to replace wooden boxes in the transportation of vegetables and other perishables, the corrugate box's assets include light weight, high protection of commodities and ease of handling.

Miscellaneous

Mineral Oils—Producers of white mineral oils and petrolatums report little or no adverse customer reaction to the recent price increases.

Customers do request an explanation, of course, and this is what producers are telling them:

Namely, that despite rising raw materials and labor costs, producers held the line against passing the added burden along to consumers since last Fall until it was no longer economical to do so.

Only Procter & Gamble supplies GLYCERINE from 9 plants across America!

Producing a steadily increasing supply of natural GLYCERINE to fill your needs.

FOR INFORMATION WRITE:
Procter & Gamble, Cincinnati 1, Ohio
or 640 Fifth Avenue, N. Y. 19, N. Y.

LEVER BROTHERS COMPANY
Producers and Refiners of
NATURAL GLYCERINE
390 Park Avenue New York 22, N. Y.

CHLORINATED SOLVENTS
Perchlorethylene • Methylene Chloride
Trichlorethylene • Carbon Tetrachloride
IMPORTED FROM WESTERN EUROPE • BULK STOCKS AT ELIZABETH, N. J.
INTERNATIONAL PETROSOLVENTS, INC.
390 Park Avenue, New York 22, N.Y.
Tel: PLaza 2-2260

in tank cars and tank trucks

SOLVAY

Allied Chemical

Call your local Solvay representative
SOLVAY PROCESS DIVISION
61 Broadway, New York 6, N. Y.

Branch Sales Offices: Boston • Charlotte • Chicago • Cincinnati • Cleveland • Detroit
Houston • New Orleans • New York • Philadelphia • Pittsburgh • St. Louis • San Francisco • Syracuse

Aliphatic Organics

For several major organic chemicals producers, first quarter business was nothing to write shareholders about. Dividends were protected, of course, but sales and earnings compared unfavorably—quite unfavorably in a few instances—with the like period in 1960. Blame for the downturn rested with the recession-slackened activity of the nation's industry, executives of several of the companies issuing annual reports last week stated, later sounding an optimistic note with the comment that March brought an upturn.

Unfortunately, according to some observers, the March upturn must be viewed skeptically. They point out that sales normally rise in March, and would automatically cancel out a part of the upturn as seasonal variations in demand patterns.

Admitting to cautious optimism, one member of the let's-wait-and-see group notes, however, that pressures in the marketplace are easing up. This he considers an indication that the recession is petering out.

Toward the end of '60 and early this year, competitive pricing, with a somewhat careless regard for the official schedule, was not terribly uncommon, it's believed. But not so anymore, several trade sources say, considering not only the absence of local price situations but the fact of several April 1 advances, the most telling being the small increase in vinyl chloride monomer.

A technical grade of acetophenone, which is reported to allow substantial savings in many non-critical applications, is now available from a leading chemicals manufacturer. Prices are 5 cents a pound below those quoted by the firm for its refined grade, and represent savings of approximately 3 cents a pound on a contained acetophenone basis.

Acetophenone — A major chemicals manufacturer is now offering a technical grade of acetophenone, which is said to allow substantial cost savings in many non-critical applications. These include the manufacture of corrosion inhibitors, resins and dyestuffs.

Prices for the new technical grade are: 30c. a pound in tankcar lots; 32½c. a pound in carload or truckload lots of drums; and 34c. a pound in less than carload lots of drums.

These prices are 5c. a pound below those currently quoted by the firm for its refined grade, and represent savings of approximately 3c. a pound on a contained acetophenone basis.

Prices for the refined grade of acetophenone were reduced 10c. a pound on February 21, according to a spokesman for the firm contacted by OPD last week.

Tentative specifications for acetophenone, technical, are: minimum purity, 97.1 percent by weight; phenylmethyl carbinol, 0.2 percent by weight; styrene, 2.3 percent by weight; freezing point, 17.2 degrees C.

Butadiene—While production of butadiene was up some 13 million pounds in January from the December level, demand the same month waned. A further drop in requirements was reported in February but March brought a slight uptrun, according to recent reports from market observers.

Linked as it is to the synthetic rubber market, butadiene naturally is affected by the siutation in the auto industry. This connection, it's explained, accounted for the lack of strong interest early this year, and in the past several weeks for the revival.

Excluding the Iron Curtain countries, world synthetic rubber production was 1,887,500 tons and consumption, 1,777,500 tons in 1960. The 1959 figures were substantially lower at 1,640,000 tons and 1,575,000 tons, respectively.

World consumption of natural and synthetic rubber totaled 3,685,500 tons in '60, down from 3,687,500 tons in '59. Consumption in the US decreased 4.5 percent from 1,627,770 tons to 1,554,368 tons, while consumption in foreign countries, excluding Russia and Red China, increased 10.3 percent from 1,682,230 to 1,855,882 tons.

Figures given above are estimates prepared by the Secretariat of the International Rubber Study Group and published by the Business & Defense Services Administration of the Commerce department.

Carbon Tetrachloride—Imports of carbon tetrachloride, close to one million pounds in January, dropped to 207,280 pounds in February. The entire quantity was valued at $18,463 and dutied at $1,762. Sources were Canada (141,280 pounds, valued at $14,424 and dutied at $1,201) and Italy. Off the roster: East Germany, major exporter of the solvent to the US in January.

Exports in February were 46,700 pounds, down from 18,458 pounds the previous month, according to the Commerce department.

Neither a major import or export, carbon tetrachloride is used domestically principally in the manufacture of chlorofluorohydrocarbons. These, in turn, are used as aerosol propellants, assumably an ever-expanding market.

With the advent of spring and developing markets for home insecticides, consumption of carbon tet is reportedly increasing. But as major manufacturers of the solvent also produce fluorohydrocarbons, as a captive operation, the spot market is little affected.

Domestic production of carbon tet in 1960 was 372,576,890 pounds, according to a preliminary report issued by the Tariff Commission. This compares with output of 367,847,000 pounds in '59.

Formaldehyde — Four Korean-owned Japanese companies will invest 400 million yen ($1.1 million) in a formaldehyde manufacturing facility at Seoul, Korea. This is the first project approved under the Republic's Foreign Investment Encouragement Law, according to a report appearing in *Foreign Commerce Weekly* (4/17/61).

Annual capacity of the new plant will be 14,000 metric tons of formaldehyde. Machinery, equipment and raw materials will be purchased in Japan, it's said.

Also, according to *Foreign Commerce Weekly*, US collaboration in the establishment of an integrated methanol and formaldehyde plant in Bombay is sought by an Indian businessman. Formation of a new company to operate under the cor-

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	April 22, 1960
130.48	130.48	130.53	132.19

For Current Prices See Page 11

Aliphatics Foreign Trade: February

Exports of selected industrial aliphatic organics for the months of January and February, 1961, as reported by the Bureau of Census, were as follows:

		February	January
Acetone	lbs.	512,399	807,732
Alcohols, including, glycols, n.e.c.	lbs.	15,517,958	5,547,448
Butyl acetate	lbs.	2,783,686	1,438,447
Butyl alcohol	lbs.	6,850,552	4,199,969
Carbon bisulfide	lbs.	257,300	236,050
Carbon tetrachloride	lbs.	46,700	18,458
Ethyl alcohol	gals.	6,535	4,928
Ethylene glycol	lbs.	5,126,499	447,795
Formaldehyde, 40 percent solution	lbs.	635,270	906,080
Glycerine, crude and refined	lbs.	789,919	693,230
Methyl alcohol	gal.	370,106	3,373,654
Methyl ethyl ketone	lbs.	500,496	525,110
Propyl alcohol	lbs.	2,388,044	351,165

Aliphatic Organics

porate name of Commercial Solvents & Chemicals (India), Ltd., is proposed.

The plant is expected to have a daily production capacity of 50 tons of methanol and 30 tons of formaldehyde, in addition to byproducts such as hexamethylene tetramine, pentaerythritol, ethylene glycol, etc. The principal raw material, naphtha, will be available in sufficient quantities, reportedly, from the two oil refineries in Bombay and those to be established in Assam and Gujarat.

Cost of the plant is tentatively estimated at $2.9 million. Up to 49 percent participation, with share in the management, is offered the potential investor.

Lacquer Solvents—Demand for paint, varnish and lacquer solvents is still below par but the upturn in sales during March, a welcomed development after the dreary pace of business in the first two months of the quarter, bodes well for further gains in coming weeks, several sources note.

Not all chemicals in this broad category are faring equally well. Requirements for acetone—a very competitive market, incidentally—and methyl ethyl ketone, for example, are relatively larger than requirements for some of the old-stand-bys. In fact, one of these, ethyl acetate, is not doing too well; last year, production dropped to about 88.6 million pounds from 100 million in '59.

Molasses—Although demand was slow and trading confined to immediate needs, markets continued to advance in the South and Midwest during the week ended April 11. At New Orleans, the top of the range was from ¼c. to ½c. a gallon higher, but mostly the price held unchanged.

Blackstrap prices climbed about ½c. a gallon at Minneapolis, Chicago, and Memphis and ¼c. at St. Louis. Part of this strength in Midwest markets was a reflection of higher Gulf prices, Agricultural Marketing Service notes.

Hawaiian cane blackstrap production in March, at 5,861,196 pounds, was more than double the amount produced in February (2,452,482) and 26 percent above output in March 1960 (4,648,122). Shipments to the US mainland in March totaled 3,997,809 pounds, up from 2,524,302 pounds in February and 2,407,167 in March a year ago.

Output for the first quarter of 1961 was 9,340,020 pounds, shipments, 8,193,807. In the corresponding period in '60, production was 7,329,231 and shipments, 9,043,677.

Sucrose—World as well as domestic markets for raw sugar may be shaken up by the turmoil in Cuba. Should the "freedom fighters" emerge victorious, according to some speculation, the huge quantities contracted for by both Red China and the USSR could be dumped on the open market causing a sudden drop in prices.

At the same time, of course, the US would undoubtedly restore the Cuban sugar quota, causing repercussions here among domestic growers and in foreign countries which have been allotted a larger percentage of the total US import requirement.

Domestic market for industrial grade refined sugar has been weak, of course; but the situation apparently worsened last fortnight because a major producer posted a reduction of 15c., establishing the quote at $9.40 a cwt., eastern refinery.

The Sugar Act of 1948 was recently amended to provide for the extension of the law through June 1962. The action gave the President authority to withhold from countries with which the US is not in diplomatic relations extra purchases in connection with the allotment of sugar withheld from Cuba.

Oxo Unit Scheduled

—*Continued from page 3*

Inc., has announced it will take the bulk of the output of the proposed plant. Reichhold says its heavier demand for oxo alcohols is the result of:

- A 100 percent increase in plasticizer output by its Deecy Products Division.
- Installation of new units to make plasticizers at Reichhold plants in California and on the east coast.
- Increase in capacity of its Detroit, Mich., plasticizer plant.

The Tidewater-Air Products announcement follows on the heels of other oxo ventures: Oxo Chemical Company's proposed plant at Haverhill, Ohio, and Gulf Oil Corporation's recently - completed plant at Philadelphia.

Latest oxo venture: Monsanto Chemical Company has decided to build a plant to make a variety of alcohols in quantities dependent on olefin charge (OPD, 4/3/61). Outsiders guess new capacity at around 60 million pounds a year.

These additions to capacity could conceivably boost total oxo capability to more than 550 million pounds a year in 1962—aside from Continental Oil Company's "Alfol" plant at Lake Charles, La., which is capable of making up to 50 million pounds a year of fatty alcohols of varying chain lengths.

It's reckoned by some market researchers that demand for oxo chemicals, currently riding above 100 million pounds a year, may reach close to 200 million pounds in 1965.

Though this figure is well below the available 1962 potential, there appears to be little cause for alarm, say some producers. Reason is that capacity figures are not easy to pin down, and do not take into consideration product-switching, olefin feed and down-time.

CMRA Meeting Program

—*Continued from page 7*

E. R. Squibb & Sons division of Olin Mathieson Chemical Corporation.

In addition to these key chemical areas, specific focus will be made on the plastic and resin markets.

J. B. Knowles, general sales manager for Union Carbide Plastics Company, a division of Union Carbide Corporation, will discuss polyolefins. H. W. DeVore, assistant to the sales vice-president of the plastic and coal chemicals division of Allied Chemical Corporation, will talk on reinforced plastics. S. L. Davidson, chief of paint development for National Lead Company, will discuss coatings and Dr. Vernon R. Grassie, director of development in the Virginia Cellulose Department of Hercules Powder Company, will talk on new polymer systems.

ORGANIC PEROXIDES

LUPEROX® #6
KETONE PEROXIDE

FORM—*Fine Powder* PEROXIDE ASSAY—90%

USE—Catalyst for fast room temperature curing of polyester resins.

LUCIDOL DIVISION

WALLACE & TIERNAN INC.
1740 MILITARY ROAD BUFFALO 5 NEW YORK

Look to BECCO first for

Peracetic Acid

as well as

• Hydrogen Peroxide • Sodium Perborate
• Ammonium & Potassium Persulfates
• and other Peroxygen Chemicals

Write for list of free technical bulletins.

BECCO Chemical Division
Food Machinery and Chemical Corporation
161 East 42nd Street, New York 17, New York

TENNANT
HYDRIODIC ACID

▶ Technical Grade
▶ ACS Reagent Grade

TENNANT CHEMICAL DIVISION
TENNANT DEVELOPMENT CORPORATION
100 Park Ave., New York 17, N. Y.
TELEPHONE: OR 9-1300

RANEY CATALYST CO., INC.

Originators and Dependable Suppliers of

RANEY CATALYSTS

1322 Hamilton National Bank Bldg.
Chattanooga 2, Tenn.

Since 1925 Phone: Amherst 6-8616, Taylor 1-7823 Cable Address: RANI

Key Chemicals from Wyandotte...

Polyols

PLURONIC• polyols — Block-polymers exhibiting a broad range of nonionic surface-active properties. Twenty-two grades now produced in commercial quantities; liquid, paste, flake, and cast-solid forms . . . 100% active in all forms.

TETRONIC• polyols — Tetrafunctional series of polyether block-polymers, similar in many properties to the Pluronics.

PLURACOL• E polyethylene glycols—Ten grades ranging in physical form from liquids to cast solids; molecular weights fall between 200 and 6000.

PLURACOL P polypropylene glycols—Four liquid grades; average molecular weights from 400 to 2000 . . . for both urethane and industrial applications.

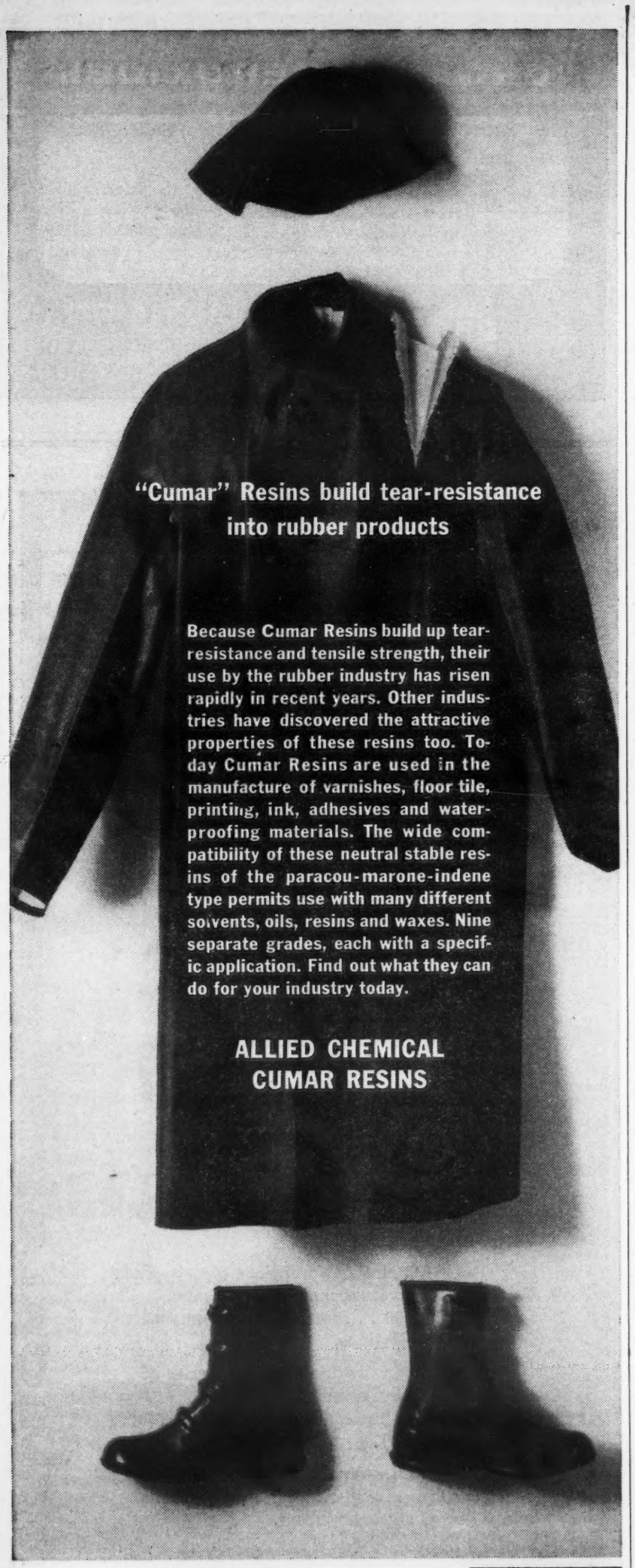
PLURACOL TP triols—A new series of trifunctional polyols for urethanes. Available in five molecular weights (440; 740; 1540; 2540; 4040).

QUADROL•—A very reactive cross-linking agent; a solvent for fluorinated hydrocarbons used in rigid urethane foams.

Wyandotte Chemicals Corporation, Michigan Alkali Division
Wyandotte, Michigan • Offices in principal cities

CHEMICALS

WYANDOTTE


"Cumar" Resins build tear-resistance into rubber products
Because Cumar Resins build up tear-resistance and tensile strength, their use by the rubber industry has risen rapidly in recent years. Other industries have discovered the attractive properties of these resins too. Today Cumar Resins are used in the manufacture of varnishes, floor tile, printing, ink, adhesives and waterproofing materials. The wide compatibility of these neutral stable resins of the paracou-marone-indene type permits use with many different solvents, oils, resins and waxes. Nine separate grades, each with a specific application. Find out what they can do for your industry today.
ALLIED CHEMICAL
CUMAR RESINS
PLASTICS DIVISION
40 RECTOR STREET, NEW YORK 6, N. Y.
Allied Chemical
BASIC TO AMERICA'S PROGRESS

Coal Chemicals

Best news of the week is the sharp upturn in steel production. At mid-April the rate stood at the sixty percent mark, highest since June of last year. Immediate implication of the persistent climb of steel output is that co-products supply will also rise. To consumers who have been seeking benzene, naphthalene, phthalic and other materials in poor supply, the news about steel is most encouraging. To chemical producers, who by and large have just reported lower first quarter net earnings than last year, the increased supply means a chance to recoup.

The boon of increased supply may be a mixed blessing, however. What appears uppermost in the minds of chemical producers now is that the supply pendulum may swing past the plumb line into an oversupply situation. Most frequently mentioned in this aspect are benzene, maleic anhydride and possibly naphthalene. With customers even now applying pressure on chemical costs, as witness the late phenol wrangle, producers are shuddering at what may come about if overcapacity, and thence oversupply, returns to plague the market.

Rubber-processing chemicals production took a dip of 5 percent in 1960, down to 200 million pounds, according to US Tariff Commission, after a total of 210 million pounds in 1959.

In its preliminary report for 1960 the Commission attributes the decreased output of these chemicals to a drop in cyclic and acrylic accelerators.

While sales of rubber-processing chemicals dropped 6 million pounds last year to a total of 153 million pounds, value of sales dropped only $1 million, down to $101 million.

Cyclic rubber processing chemicals 1960 production was off 7 million pounds to a total of 171 million pounds. Sales dropped 4 million pounds to a total of 130 million pounds valued at $85 million. Sales value in 1959 was placed at $86 million.

Production of steel in the week ended April 15 was 1,748,000 net tons, an increase of 3.1 percent from the preceding week.

Based on assumed 1961 steel capacity, rate of production for the week was 60.6 percent, highest achieved in the last ten months.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 22, 1960
117.64	117.51	117.51	118.40

For Current Prices See Page 11

Basic Products

Benzene—Supply situation continues to improve according to trade sources.

Nearly all customers appear able to garner their required needs.

The degree of improvement in supply lessens, however, the further one travels from the Gulf coast.

Northern New York and Michigan are two areas mentioned that still experience a measure of tight supply.

Now that steel rate is climbing, coke-oven operators are confident of increasing their share of the market.

Creosote—A slight seasonal pickup is noted by producers.

Bulk of the business is coming from utility companies at present.

Railroad volume is still restricted to actual needs.

Start of construction projects with the advent of favorable weather is also boosting creosote sales.

Prices hold at 24c. a gallon for crude material and 22.6c. for 80 percent solution material.

Naphthalene—Increased supply is coming from domestic and foreign sources.

On the domestic scene increased steel production is leading to more abundant naphthalene supply.

Most producers are still "stretching" material by running mixed streams.

Interest abroad in naphthalene continues. Rumor has it that an Italian chemical giant has plans for a petro-naphthalene plant. Such a unit would be Europe's first and further point up the growing dependence of the continent's needs on petroleum.

European naphthalene from diverse sources is flowing into US ports in increasing volume.

Last week some 2.1 million pounds of imported naphthalene arrived in New York.

Broken down by country of origin the shipments came from—

Belgium—719,840 pounds.
Poland—609,400 pounds.
UK—546,040 pounds.
Netherlands—220,000 pounds.

Phenol—One major producer reports sales are being well sustained thus far through April.

While the recent price cut caused some consternation among producers, most report business has rebounded in the last six weeks from winter lows.

One reason for extra business picked up by phenol suppliers has been the strike at the plant of one major supplier.

o-Xylene—Demand for ortho continues strong in the domestic market, producers report.

How long this situation will endure is a question mark, however, for naphthalene supply is gaining steadily. Most observers feel phthalic producers will abandon ortho just as soon as naphthalene supplies become freely available.

This desire to return to naphthalene is based, of course, on its higher yields. This feature becomes especially attractive when petro-naphthalene yields are considered.

Overseas demand has been primarily based on the naphthalene shortage as well. Now, however, there is belief in the trade that at least in some overseas areas the swing will go to naphthalene again.

Dyes

Blue Black Ex. Conc.—A major producer has reduced the price of this dye 7c. a pound to a level of $1.44 a pound. Change became effective April 1.

Intermediates

Maleic Anhydride—Latest addition to the burgeoning MA supply field is performing satisfactorily at Pittsburgh according to the operator.

On stream in February the plant is producing captive and merchant MA.

Trade sources continue to report an easy supply situation.

Over the winter this condition was attributed to the general recessionary economic nature of the market. Now, however, it is admitted that over-capacity is in

Cokeoven Output: February

The following statistics indicate production of selected coal chemicals as reported to the Bureau of Mines by cokeoven plant operators. Benzene statistics do not include motor benzol. All figures are reported in gallons.

	February 1961	*February* 1960	*First Two Months* 1961	*First Two Months* 1960
Benzene, nitration	5,917,048	10,897,687	11,853,789	22,413,137
Industrial pure	2,133,899	3,749,464	4,895,929	7,367,018
Industrial 90 and other	100,743	154,189	253,644	310,022
Coaltar, crude	41,503,908	71,400,381	85,011,440	145,901,321
Chemical oil, crude	1,807,637	2,250,399	3,931,713	4,819,194
Solvent naphtha, crude and refined	238,783	443,924	588,110	871,157
Toluene, nitration	1,639,534	2,425,218	3,221,567	4,881,987
Industrial pure	356,683	582,841	753,932	1,068,416
Xylene, all grades	552,455	776,678	1,091,709	1,515,140

TERE-PHTHALIC ACID

DUPONT
REG. U.S. PAT. OFF.

97+% pure technical grade. High melting (approx. 425° C.). Thermally stable.

A chemically reactive, dibasic acid with many uses in synthesis of resins and plasticizers. Supplied as light yellow solid in 325, 100, 10 lb. fibre drums.

For further information, contact our nearest district office (Boston, Chicago, Cleveland, Houston, Los Angeles, New York, or Charlotte) or write Du Pont, 2446 Nemours Bldg., Wilmington 98, Delaware.

Coal Chemicals

part responsible for the long supply situation.

Notable in this respect is that the next supplier to come on stream — expected shortly at a New Jersey site—will devote about half its MA output to captive use.

2-Mercaptobenzothiazole—Production of this major accelerator in 1960 was 7,236,000 pounds according to the Tariff Commission.

Sales amounted to 4,397,000 pounds valued at $1,826,000. Average price per pound—42c.

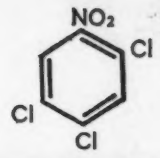
Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended April 15, were as follows:

Ammonia liquor	lbs.	523,090
Ammonium sulfate	lbs.	22,265,890
Benzene	gals.	2,298,320
Coaltar	gals.	12,100,166
Crude chemical oil	gals.	463,742
Solvent naphtha	gals.	78,957
Toluene	gals.	532,960
Xylene	gals.	148,044

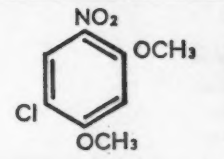
NEW PFISTER Intermediates

offered by Pfister Chemical Works in commercial quantities . . .



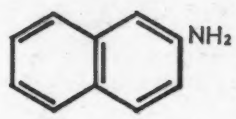
2,4,5,-TRICHLORO-NITROBENZENE

(A yellow crystalline solid, insoluble in water and alcohol, soluble in carbon disulfide. May be used in the manufacture of dyes, agricultural and other organic chemicals.)



2,4-DIMETHOXY-5-CHLORO-NITRO-BENZENE

(A light yellow powder; insoluble in water, sparingly soluble in cold alcohol, soluble in chloroform and ether. May be used as an intermediate in dyes manufacture.)

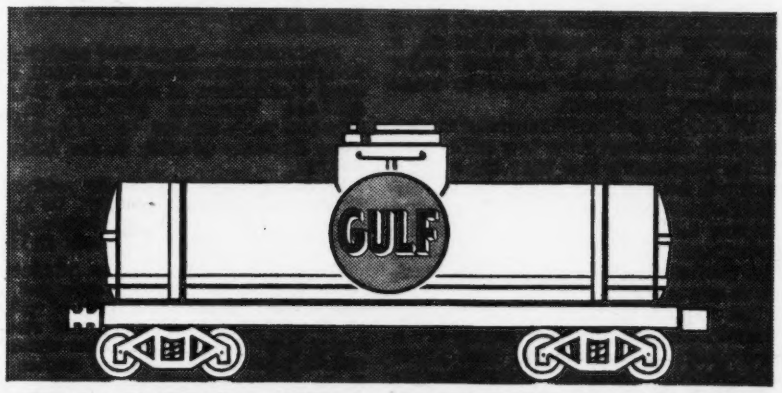


BETA NAPHTHYLAMINE

(White to reddish flakes; soluble in water, alcohol and ether; having a minimum purity of 98.5%. May be used in the manufacture of dyes, antioxidants and other organic chemicals.)

For further information, samples and catalog listing numerous intermediates write or phone us.

Pfister Chemical Works
RIDGEFIELD, N. J. 7



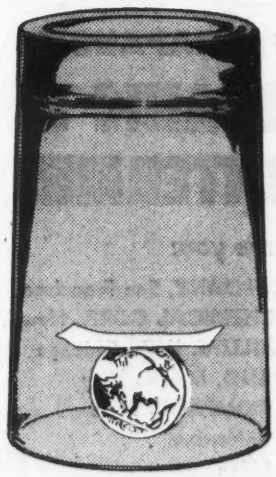
CYCLOHEXANE

QUALITY PETROCHEMICALS TO BEGIN WITH

Benzene / Ethylene / Oxo Alcohols / Propylene / Propylene Trimer and Tetramer / Sulfur / Toluene

Petrochemicals Department, Gulf Oil Corporation, Pittsburgh, Pennsylvania • Sales Offices: 360 Lexington Avenue, New York 17, New York • Gulf Building, Houston 1, Texas • European Representative: Gulf House, 2 Portman Street, London W. 1, England.

OPD Quickest way to keep current on Chemical Costs



Take Another Look... at Bzura FUMARIC ACID

Send *for newly issued 1961 specification and price sheets. Samples are also available for your evaluation.*

FERMENTATION CHEMICALS

BZURA
CHEMICAL COMPANY INC.
Clark Street, off Broadway
Keyport, New Jersey • Fieldsboro, New Jersey

PUZZLE

??????????????????

Set a nickel on edge and balance a sliver of paper on top. Cover both with a water glass. Now, how do you remove the paper from the nickel without touching the glass?

??????????????????

There's no puzzle about product performance when you buy chemicals from United States Steel. To solve puzzler above:

Run a pocket comb through your hair several times. Hold comb close to side of glass. Static electricity will pull paper off nickel.

Benzene • Toluene
Xylene • Phenol • Cresol
Cresylic Acid
Naphthalene • Creosote
Picoline • Pyridine
Pitch • Ammonium Sulfate
Ammonium Nitrate
Anhydrous Ammonia
Nitric Acid

U. S. Steel Chemical
Sales Offices: Pittsburgh, New York, Chicago, Salt Lake City and Fairfield, Alabama

USS Chemicals

CLINTBROOK

CAMPHOR SYNTHETIC

Ample supplies available for prompt and Future shipments!

Sole "DuPont" Licensee

CAMPHOR SYNTHETIC

USP and Technical Powder and Flakes
"TOWER BRAND"®

"TOWER BRAND"® TABLETS

½ oz. and 1 oz. individually wrapped and labeled conforming to U.S. Retail Preference. Only American Tablets, Standard Since 1953.

CLINTBROOK CHEMICAL COMPANY
division of
CHAS. L. HUISKING & CO., Inc.
417 Fifth Ave., New York 16, N. Y., Phone: ORegon 9-8400. Cables: Huisking, N. Y.
Plant and Warehouse at Lyndhurst, N. J. Chicago Office: 435 No. Michigan Ave.

CLINTBROOK CHEMICALS CC

ARAPAHOE CHEMICALS
TRADE-MARK

Sales agents of **ARAPAHOE's**

FINE ORGANIC REAGENTS and INTERMEDIATES

are ready to serve you:

S. L. ABBOT COMPANY, San Francisco
MILLMASTER CHEMICAL CORP., New York City
WILLIAM E. PHILLIPS, INC., Chicago
GEORGE M. BANO, Mexico City
DOLDER AND COMPANY, Basle
INTERNATIO, Rotterdam
JUVA, S.p.A., Milan
KINGSLEY AND KEITH (CHEMICALS), LTD., London
MARSING AND COMPANY, LTD., Copenhagen
SOCIETE DE PRODUITS CHIMIQUES INDUSTRIELS, Paris
BY-PRODUCTS AND CHEMICALS, PTY., LTD., Sydney

Also Available

CUSTOM SERVICES

EVER

- want to hire a plant?
- need pilot to commercial production while exploring sales potential?
- worry about control?

We specialize in producing organic compounds, intermediates (used in making hormones, vitamins, etc.) and semi-finished drugs, insecticides and pesticides on a volume basis.

Don't spend for plant until you are sure. It's better to hire us as many of our satisfied customers do.

ARAPAHOE CHEMICALS, INC.
2855 WALNUT • BOULDER, COLORADO
PRODUCERS OF FINE ORGANIC CHEMICALS

Drugs, Fine Chemicals

Vigorous competition faces manufacturers of fine chemicals—as an industry executive noted in a report to stockholders last week—and in addition to searching for new end-uses, some firms are attempting to calm the fracas by getting the kids off the street, at least those that may not belong there, by moving the battle into the courts. Notable for this tack is the leading domestic producer of vitamin B_{12}.

Having drastically cut prices in successive stages over the past year as the opening maneuver in its marketing strategy, the firm lately filed law suits in federal district courts in New York, New Jersey, California, Illinois and Delaware; it is seeking injunctions to prevent continuation of any proven patent infringement and damages for that which may have occurred.

The firm so far has been successful in one instance. Terminating a suit initiated in 1957, a large brewery recently admitted infringing the firm's patents on vitamin B_{12} concentrates and agreed to discontinue manufacture. Seven other lawsuits, only recently begun, are still quite a long way from settlement, however.

Another of the major firms in the industry also reports that it has taken legal action in two instances to stop infringement of its patent covering the antibiotic tetracycline. In one of these, according to a company spokesman, a consent decree was entered under which the defendants agreed to cease infringing the patent.

Although considerable sums of money must be spent on these law suits, both firms presumably feel that the end-result will be worth it. Not only will individual markets be firmed up but the actions will serve notice on would-be patent-infringers that their presence in the marketplace will not be overlooked, in fact questioned.

It's logical to assume that for the vitamin B_{12} producer the courts are a last resort. The firm has axed prices repeatedly and sought a reclassification of the vitamin as a coaltar derivative, which increased the tariff rate, but apparently, none of these actions could discourage their allegedly unlawful competition.

Ascorbic Acid — While pharmaceutical demands are said to be tapering off seasonally, requirements from food and beverage outlets are well-maintained and likely to remain so indefinitely. Thus, there should be no extraordinary need to unload product at less than the official schedule, which remains at levels fixed several months ago despite interim rumors of weakness and shading.

Import volume, which helped to break prices in successive stages during 1960, seems to be declining. At least, since the final quarter of last year, the trend has been downward—excepting a slight rise in January—and February represented a new low.

Imports that month were 15,654 pounds valued at $50,808 and dutied at $5,335. Suppliers, according to statistics just released by the Commerce department, were Japan (9,639 pounds, valued at $33,327 and dutied at $3,499) and Denmark (6,615 pounds, valued at $17,481 and dutied at $1,836).

Cortisone — There have been reports of price weakness and shading on cortisone and hydrocortisone prices, but most trading is still being conducted at about 95c. a gram, the low level quoted by at least one manufacturer for the past several months.

February exports of cortisone were worth $585,941. Shipments went to: Bermuda $292,968; Argentina $95,000; Italy $73,066; Canada $31,780; and Panama $22,267.

The same month, hydrocortisone exports were valued at $107,775, the Commerce department says. Getting the lion's share was Canada ($36,042). Lesser shipments went to: West Germany $21,600; Venezuela $20,689; Panama $8,901; and Bermuda $4,215.

Prednisolone — Exports of prednisolone in February were valued at $953,566. Principal destinations of shipments: Belgium $157,462; Venezuela $142,101; Panama $136,954; India $99,400; Colombia $88,000; West Germany $74,500; United Kingdom $66,194.

Major overseas markets for prednisone shipments, valued at $155,917, in February were: Panama $122,332; Belgium $16,390; Switzerland $8,500; Canada $5,115.

Quinine—General Services Administration, having successfully unloaded approximately 2.7 million ounces of quinine in dosage form, is getting ready now to accept bids on some 9.5 million ounces of sulfate powder. Because the sulfate salt is in better demand, reportedly, there should be relatively more interest on the part of the trade in this sale.

Quinine prices were advanced last December and as yet anyway, there are no indications of weakness developing as a side-effect of the government's sale of stockpiled material.

A related item, quinidine is said to be in good demand. Prices, boosted in mid-March, are called firm.

Sulfa Drugs—Domestic market for sulfa drugs is still quite competitive, one of the pressures being import volume. Seasonally-relaxed demand is also believed to be a factor.

Foreign markets absorbed 191,563 pounds of sulfa drugs in February, more than four times shipments abroad in January (47,096).

In terms of volume, sulfathiazole was the major export, shipments totaling 138,076 pounds, valued at $75,100. Newer and more expensive sulfonamides, however, accounted for the bulk of revenue. On exports of 51,918 pounds, the bill was $579,073.

Sulfadiazine exports in February were 1,569 pounds, valued at $18,663.

Tartaric Acid—Demand is reported to be quite active but otherwise the market is without new developments. Prices, rumored to be competitive a while back, now seem reasonably firm and, according to trade sources recently contacted by OPD, no changes are anticipated.

In February, imports of tartaric acid totaled 365,821 pounds. Spain shipped the

—*Continued on page 50*

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	April 22, 1960
59.29	59.29	59.29	60.36

For Current Prices See Page 11

Drugs and Fine Chemicals Imports: February

Exports of selected drugs and fine chemicals for the months of January and February 1961, as reported by the Bureau of Census, were as follows:

		February	*January*
Analgesics and antipyretics	lbs.	34,187	9,299
Antibiotics, Bulk & dosage, forms, n.e.c.	gms.	11,236,639	17,390,705
Ascorbic acid	lbs.	73,770	113,692
Aspirin	lbs.	140,761	66,470
B-complex (excluding B_1 and B_{12})	lbs.	33,306	39,935
Bacitracin	100-million-units	2,782	1,849
Dihydrostreptomycin, bulk	gms.	9,030,600	7,276,783
Pectin and preparations	lbs.	30,566	51,060
Penicillin, bulk	billion units	12,344,788	6,363,943
Streptomycin, all forms	gms	14,477,125	6,922,838
Sulfa Drugs	lbs.	191,563	47,096
Thiamine	lbs.	3,327	5,075
Vitamin A bulk, medicinal	lbs.	10,679	5,528
Vitamins, bulk, n.e.c.*	lbs	70,388	57,439

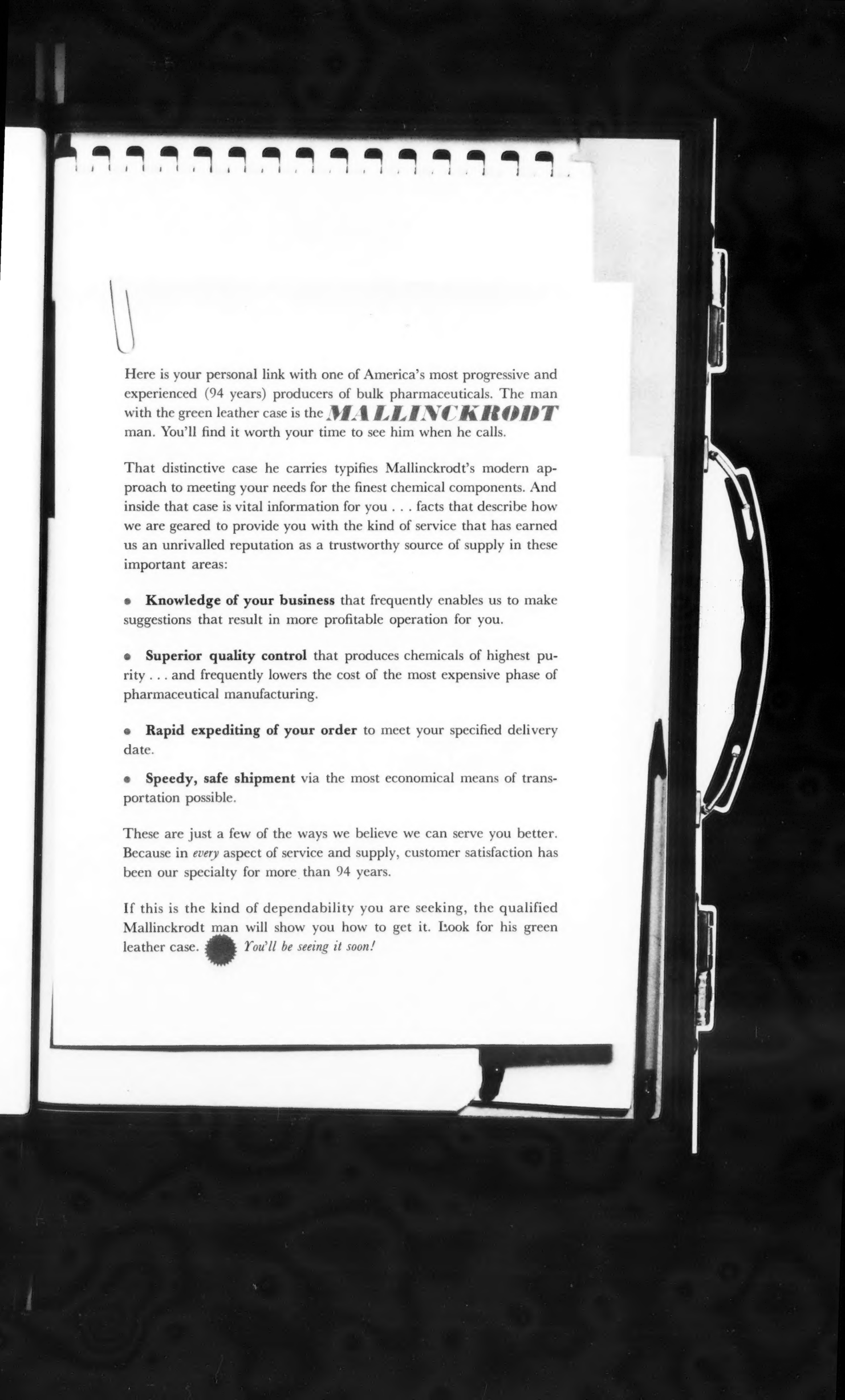
* Not elsewhere classified by the Census bureau.

LOOK FOR THE MAN WITH
THE GREEN LEATHER CASE

... YOU'LL BE SEEING HIM SOON!

'94*

A CASE OF CONFIDENCE



Here is your personal link with one of America's most progressive and experienced (94 years) producers of bulk pharmaceuticals. The man with the green leather case is the **MALLINCKRODT** man. You'll find it worth your time to see him when he calls.

That distinctive case he carries typifies Mallinckrodt's modern approach to meeting your needs for the finest chemical components. And inside that case is vital information for you . . . facts that describe how we are geared to provide you with the kind of service that has earned us an unrivalled reputation as a trustworthy source of supply in these important areas:

- **Knowledge of your business** that frequently enables us to make suggestions that result in more profitable operation for you.

- **Superior quality control** that produces chemicals of highest purity . . . and frequently lowers the cost of the most expensive phase of pharmaceutical manufacturing.

- **Rapid expediting of your order** to meet your specified delivery date.

- **Speedy, safe shipment** via the most economical means of transportation possible.

These are just a few of the ways we believe we can serve you better. Because in *every* aspect of service and supply, customer satisfaction has been our specialty for more than 94 years.

If this is the kind of dependability you are seeking, the qualified Mallinckrodt man will show you how to get it. Look for his green leather case. *You'll be seeing it soon!*

MALLINCKRODT MAKES THESE PHARMACEUTICAL CHEMICALS:

Bismuth Subcarbonate U.S.P.
Bismuth Subnitrate N.F.
Bismuth Subsalicylate U.S.P.
Calcium Gluconate U.S.P.
Codeine Alkaloid N.F.
Codeine Phosphate U.S.P.
Codeine Sulfate N.F.
Dihydrocodeinone Bitartrate N.F.
Ferric Ammonium Citrate N.F.
Ferric Pyrophosphate N.F.
Ferrous Sulfate Exsiccated U.S.P. Dense (Powder)
Iodine U.S.P. Resublimed
Magnesium Stearate U.S.P.
Magnesium Sulfate Purified Dried (Powder)
Magnesium Trisilicate U.S.P.
Mercuric Chloride N.F.
Mercury Ammoniated U.S.P.
Morphine Sulfate U.S.P.
Noscapine N.F. Alkaloid (Powder)
Opium U.S.P.
Phenobarbital U.S.P.
Potassium Bicarbonate U.S.P.
Potassium Chloride U.S.P.
Potassium Iodide U.S.P. Granular
Sodium Biphosphate U.S.P.
Sodium Iodide U.S.P.
Sodium Sulfate C.P. Dried (Powder)
TOLERON*
Zinc Sulfate Purified Dried Powder

*REG. U.S. PAT. OFF.

MALLINCKRODT *CHEMICAL WORKS / St. Louis, New York, Montreal*

Today We Meet Our Standards — Tomorrow We Exceed Them

ROCHE
VITAMIN A

A VITAMIN A TIP
RIGHT FROM ROCHE

Depend on the world's largest Vitamin A plant for the potency, purity and constantly improved superiority of Roche Vitamin A—"just your type" for any pharmaceutical or food requirement.

HOFFMANN-LA ROCHE INC., Nutley 10, New Jersey

Calcined Magnesite

All Industrial Grades

Fast delivery from Saint Louis, Michigan, Port St. Joe, Florida, or convenient warehouse stocks at Port Newark, New Jersey. Available in small or large quantities. Samples, specifications and prices on request.

For fast, dependable service call

MICHIGAN CHEMICAL CORPORATION

Saint Louis, Michigan. Phone 4511 • New York 17: 230 Park Avenue. MU 3-5480

C-61-1

BROMINE POTASSIUM BROMIDE SODIUM BROMIDE

J. Q. DICKINSON & CO. :-: MALDEN, W. VA.

FOUNDED 1835

Products move faster in tubes

Sales come easier, faster...when you package in *Tubes*. Any size, any style, any opening...but only *one* quality...*Standard!*

Look for "Standard" in your classified phone directory, under "Collapsible Tubes"

Standard COLLAPSIBLE TUBE CO.

Rochester, Pa.

K-2

Drugs, Fine Chemicals

—Continued from page 44

largest quantity, 280,000 pounds, valued at $86,799 and dutied at $16,800.

The remainder was supplied by Italy, 61,730 pounds valued at $18,074 and dutied at $3,704; and France, 24,091 pounds valued at $7,630 and dutied at $1,445.

Thiamine—A continuing pressure on domestic manufacturers of thiamine is import volume, principally from Japan and Denmark. In February, for example, the two countries shipped some 904 pounds of the vitamin here, on which the value was figured at $6,750 and the duty $709 by the Commerce department. Of the total, Denmark accounted for 551 pounds.

Japan shipped the bulk of the B_1 which entered the US in February, however. Totaling 220 pounds, the Jap material was valued at $7,244 and dutied at $761. Denmark, the only other supplier, accounted for the remainder of the 396-pound inshipment, which carried a value of $13,048 and a duty of $1,370.

Although thiamine imports have been coming in regularly, there has been little or no pyridoxine arriving here in recent months. The absence of foreign goods has naturally had a firming influence on the domestic market.

Prices for both vitamins are believed to be relatively stable, yet below schedules officially posted by some suppliers.

Vitamin B_{12}—In an effort to end alleged infringement of its B_{12} patents, a major manufacturer of the vitamin has filed four separte law suits—two in New York, one in Delaware, one in Illinois—seeking injunctions to prevent continuation of any proven infringement and damages for that which may have occurred.

Spokesman for the firm declared that such vigorous action was necessary to protect patents based on fundamental research in which millions of dollars had been invested. He added that additional suits may be necessary.

In earlier actions this year, the same company filed law suits, which also charged infringement of its B_{12} patents, in New York, New Jersey and California.

February exports of B_{12} were valued at $59,304, according to the Commerce Department. Shipments worth upward of $1,000 went to: Bermuda $31,307; Canada $14,839; Japan $2,750; Philippine Republic $2,247; Colombia $1,518; Chile $1,286; and Denmark $1,140.

Botanicals

Spot quote on buchu leaves was hiked 10 cents a pound last week, the latest in a series of price increases necessitated by higher replacement costs.

Generally, however, stability prevails throughout most of OPD's imported botanical list. Prices for domestic items, mostly in short supply, are seen as nominal by several trade sources, who feel that some suppliers are actually selling short—at prices slightly below list—in anticipation of adequate collections in the coming season.

Markets for both gum arabic and gum karaya are described as very steady, the latter having firmed up appreciably within the last fortnight.

Agar Agar—Recent receipt of new crop has not resulted in a price reduction, higher replacement costs and reports of limited availability of material being the factor mainly responsible, dealers here explain.

Buchu Leaves—Quoted at 70c. to 75c. a pound at the beginning of the year, buchu leaves dropped to 50c. to 55c. a pound in February. Here the price remained until last week when a 10c. a pound advance was posted. The higher level, a trade source noted, was in response to advancing shipping prices.

Gum Arabic—There has been scarcely any price activity in this market since the beginning of the year. Furthermore, stability is likely to prevail indefinitely, for with the new crop already in pressures from source are temporarily non-existent.

Gum Karaya—Dealers call karaya a very strong market, one of the group having only recently advanced schedules for the powders about 2c. a pound. Maintenance of listings by other suppliers over the past several weeks results in no change in OPD quotations, however, since the higher levels quoted by the latter were carried throughout.

For the NF No. 1 powder, the quote is 48c. to 50c. a pound. The No. 2 is about 5c. a pound cheaper and the No. 3, 10c. to 11c. a pound cheaper.

Irish Moss—Quote was recently boosted to 30c. to 32c. a pound, approximately 5c. higher than the previous level. Here too, higher replacement costs are cited as the reason for the change.

Lobelia—What little material is available is believed to be selling at 95c. to $1.10 a pound. It is possible, of course, that some dealers are selling short and at lower prices, obviously expecting adequate collections during the coming season.

Drug, Fine Chemical Briefs

ANTIBIOTICS APPROVED: "Oleandomycin" and oxytetracycline hydrochloride have been cleared as safe under the food additives law for use in chicken, turkey and swine feeds by the Food & Drug Administration. The clearance order fixed a zero tolerance for residues of the chemicals in the uncooked tissues of the fowl and swine.

ANTIPINWORM DRUG: Single-dose effectiveness of "Povan" tablets has been established by clinical trials involving both children and adults, according to the manufacturer of the antipinworm drug, Parke, Davis & Co., Detroit, Mich. The pamoate salt of pyrvinium, "Povan" has been available in liquid form for eighteen months.

PROPRIETARY DIVISION: Chas. Pfizer & Co., Brooklyn, New York, has established a new division, Labaron Pharmacal, to market proprietary drugs. The first of these is "Beam," a preparation for irritated eyes, which is scheduled to be test-marketed early next month in Los Angeles and Muncie, Ind.

HORMONES

DEHYDROCHOLIC ACID, N.F.
(Oral and Injectable Grades)

OX BILE USP

DRIED OX GALL POWDER

We invite your inquiries

GEDEON RICHTER
PHARMACEUTICAL PRODUCTS INC.
20 Exchange Place, New York 5, N. Y

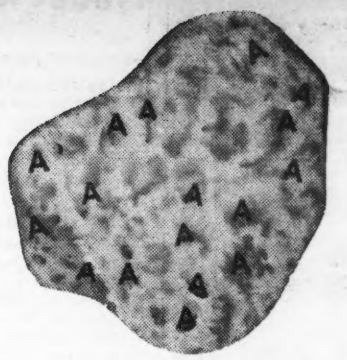
REAP
More Profits With...
PRIVATE FORMULAE*
capsules • injectables
tablets • liquids
*Your name or ours imprinted
Write for latest catalog & price list
GOLD LEAF
GOLD LEAF PHARMACAL CO., INC.
Dept. OP 36 Lawton St., New Rochelle, N. Y.

NOW OVER **18,000**
BIOS CHEMICALS

- 1,5-DIMETHYLNAPHTHALENE
- DIMETHYLPYRONE
- 2,4-DIMETHYLPYRROLE
- 2,5-DIMETHYLPYRROLE
- 2,4-DIMETHYLQUINOLINE
- DIMETHYLTELLURONIUM DIIODIDE
- 2,8-DIMETHYLTHIANTHRENE
- 2,4-DIMETHYLTHIAZOLE
- DIMETHYL ZINC
- α,α'-DINAPHTHYL
- β,β'-DINAPHTHYL
- 4,4'-DINITRO-1,1'-BINAPHTHYL
- 2,2'-DINITROBIPHENYL
- 1,5-DINITRONAPHTHALENE
- 1,8-DINITRONAPHTHALENE
- 1,6-DINITRO-2-NAPHTHOL
- 2,6-DINITROPHENOL
- β-DIOLEIN

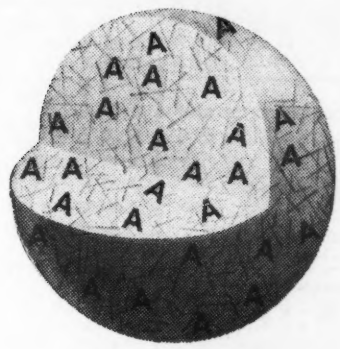
Ask for our new complete catalogue.

BIOS Laboratories Inc
17 West 60th St. New York 23, New York
Plaza 7-8171



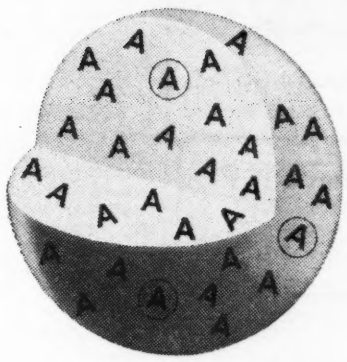
Vitamin A soaked in spongy material

leaks out



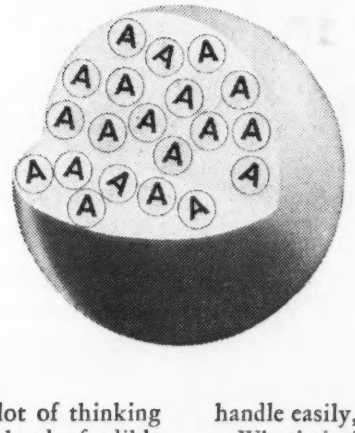
Vitamin A dissolved in hot wax

diffuses out between wax crystals



Vitamin A dissolved in gumlike substance

some dissolves, some doesn't



Vitamin A in edible gelatin spheres

stays put— stays potent

The diagrams show why, after a lot of thinking and testing, we settled on a tiny bead of edible gelatin to make our *Myvax® Dry Vitamin A Palmitate.* What's inside the bead *stays* inside. In your tablet and dry-fill capsule operations you get the same good result.

The vitamin A can't diffuse in our *Myvax Dry* gelatin bead. Air won't wreck the bead and neither will oil-soluble chemicals. It's tough enough to take the slam of a tablet punch. Small enough to deliver 500,000 units of vitamin A per gram without hogging space in tablet or capsule. It's sized to handle easily, and can be had with vitamin D.

What's inside the bead stays potent because the palmitate form hangs on to potency even at the soggiest of humidities. Double protection—in the palmitate and in the way it's carried.

We'll gladly send a sample you can try, help you analyze the finished product, lend a hand in stability tests. Just write to ***Distillation Products Industries,*** Rochester 3, N. Y. Sales offices: New York and Chicago • W. M. Gillies, Inc., West Coast • Charles Albert Smith Limited, Montreal and Toronto.

leaders in research and production of vitamin A

DPi

Also . . . vitamin E . . . distilled monoglycerides . . . some 3800 Eastman Organic Chemicals for science and industry

Distillation Products Industries *is a division of* **Eastman Kodak Company**

METOL

Monomethylparaminophenol Sulfate
Registered Trade Mark

TANNIC ACID GALLIC ACID
(U.S.P. and Technical Grades)

PYROGALLIC ACID
(U.S.P. and Technical Grades)

THE HARSHAW CHEMICAL CO.
CLEVELAND 6, OHIO

Cleveland • Chicagoe • Cincinnati • Detroit • Hastings-on-Hudson, N. Y.
Houston • Los Angeles • Philadelphia • Pittsburgh

NEPERA

PIONEERS IN PYRIDINE CHEMISTRY
also supply a growing group of pharmaceutical companies whose products require vasoconstrictors or bronchial dilators with

PHENYLPROPANOLAMINE HCl

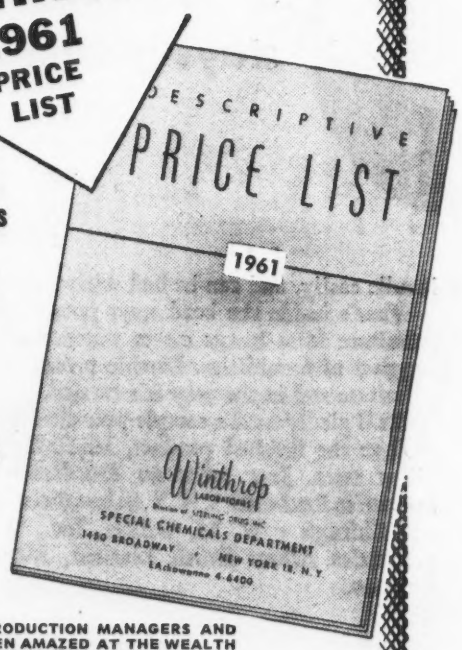
This Nepera compound combines long-lasting activity with a gratifyingly low incidence of side effects. It is economical.
For technical details, call New York City—WO 6-3273—or write to

NEPERA CHEMICAL CO., INC., HARRIMAN, NEW YORK

OPD

Quickest way to keep current
on
Chemical Costs

NEW PRICES, NEW PRODUCTS
IN **WINTHROP'S**
1961
PRICE LIST



OVER 100 BULK CHEMICALS
INCLUDING
- **PHARMACEUTICALS** such as DIPYRONE, PHENYLEPHRINE
- **INTERMEDIATES** such as DIPHENYLACETONITRILE, MALONONITRILE
- **PYRAZOLONES** such as PHENYL CARBETHOXY PYRAZOLONE, PHENYL METHYL PYRAZOLONE
- **AMINO ACIDS** and others BIOCHEMICALS

MANY PURCHASING AGENTS, PRODUCTION MANAGERS AND RESEARCH DIRECTORS HAVE BEEN AMAZED AT THE WEALTH OF CHEMICAL STOCKS AVAILABLE FROM WINTHROP

If you want something Special be prepared

FILL OUT THE COUPON FOR PROMPT MAILING.

Winthrop Laboratories — Dept. OPD-4-24-1
Special Chemicals Dept.
1450 Broadway, New York 18, N. Y.

NAME .....
FIRM .....
STREET ADDRESS .....
CITY ..... ZONE ..... STATE .....

Trade Name Chemicals

—Continued from page 39

due to the added protection which it affords in an antioxidant formulation.

It is usually used with citric acid as a metal scavenger since propyl gallate tends to discolor in the presence of trace metals. Despite encroachment by newer antioxidants, propyl gallate sales have shown a modest increase over recent years.

Tariff Commission figures indicate sales of 48,000 pounds in 1959 as against 40,000 pounds in the previous year. Production is about double sales (87,000 pounds in '59) and it is estimated that a sizable portion of propyl gallate production is consumed captively in making up antioxidant formulatoins with the substituted phenols.

Use concentrations range from 0.01 to 0.05 percent with citric acid to prevent rancidity in lard. Price is $3.90 per pound in ton lots and ranges up to $4.40 per pound in 100-pound lots.

Other materials used as antioxidants include mixed tocopherols as antioxidants in white mineral oils and lecithin in both animal and vegetable oils.

Lecithin a Natural Antioxidant

Lecithin, although it has natural antioxidant properties, is more often thought of as a co-product of soybean oil manufacture widely used in the protective coatings industry as an emulsifying agent for oil in water systems.

Commercial grades of lecithin sell at about 15 cents a pound and usually contain more than 50 percent phosphatides and 35-45 percent soybean oil. Typical of available products are the "Kelecins" of Spencer Kellogg & Sons and "Alcolec" manufactured by American Lecithin Company.

Tocopherols have found use in stabilizing white mineral and essential oils, especially orange oils. For these end-uses Distillation Products Industries markets concentrated mixed tocopherols "434" and "450" with 34 percent and 50 percent by weight of mixed tocopherols.

DPI points out that these products are derived from natural oil which is the prefered form. Price of "434" is $22.80 per kilo, while "450" is $33.50 per kilo.

First use of tocopherols in white mineral oil to prevent formation of peroxides was made by Sonneborn Chemical & Refining Corporation but has come into general use since incorporation in the US Pharmacopoeia.

USP XVI includes BHT for this application and sources report some changeover to the lower-cost phenolic has probably already been made, although cost is not really considered significant here due to the relatively small volume used.

Trade Name Briefs

ACRYLICS: Banner Chemical Products Company, Newark, N. J., is supplying two new acrylic emulsion polymers to seal and protect worn floors or to prevent excess wearing at heavy traffic points. The new products are designed specifically as "a terrazzo floor seal and an asphalt tile floor seal," Banner says.

BRIGHTENERS: Geigy Industrial Chemicals has taken the wraps off a new fluorescent brightening agent, "Tinopal SFG." Uses include whitening and brightening of plastics, coating, synthetic fibers, waxes and other organics.

DYES: "Dispersol CWL" is the trade name for a new level dyeing assistant being supplied by Arnold, Hoffman & Co. The improvement of level dyeing properties of those acid milling dyes normally considered poor in this respect permits dye conditions hitherto considered unsuitable, the company says.

EMULSIONS: Two new polymer emulsions, "Ubatol U-5000" (styrene) and "Ubatol U-3400" (acrylate), have been introduced by UBS Chemical Company, Cambridge, Mass. According to John C. Smith, UBS sales manager, the products have been developed "to meet the changing demands of the floor polish industry as well as to complement the 'Ubatol' series of polymer emulsions."

FATTY ACIDS: Harchem Division of Wallace & Tiernan, Inc., has boosted prices on most "Century" fatty acids ¾ cent a pound. Current prices on large quantities range from 12 cents to 16 cents a pound, f.o.b. shipping point, freight allowed to destination.

SILICONES: A new silicone rubber compound for use as wire and cable insulation has been put on the market by the silicone products department of General Electric Company. Similar to the "SE-975" series of compounds, the new material ("SE-9007") is designed for high quality aircraft, hook-up, motor lead and similar wire applications, GE says.

SOFTENERS: Wilson-Martin, organic chemical division of Wilson & Co., is supplying a base for a new laundry rinse softener for diapers, towels and home laundry use called "Wilsoft." The product is a cationic fatty nitrogen with bactericidal and antistatic properties, the company reports.

AIC to Honor Van Doren

American Institute of Chemists, New York chapter, will hold an honorary membership dinner for Dr. Lloyd Van Doren, Thursday (April 27) at the Shelburne hotel in New York. Dr. Van Doren's acceptance speech is titled "The Chemist and Chemical Patent Procedure."

Spencer Building Unit

—Continued from page 3

polyethylene latexes, trade-named "Poly-Em," at Calumet City. Some of these are ready for commercial exploitation, while others will continue under development after the new plant starts up.

The company's current polymer output includes low- and medium density polyethylene and nylon-6. The company markets but does not produce polypropylene.

Midwest outlets for polyethylene latex lie in textile treating, paper coatings, and waxes and polishes.

stanley blackman labs., inc.
so. hackensack, new jersey

PURIFIED PAPAIN
N.F.-100 AND 350 UNITS
Technical Bulletin Available

Rutin, N.F.

Diamond 3-3525 (N.J.)
Wisconsin 7-5262 (N.Y.)

Thallium Salts

Chloride • Iodide • Nitrate

WOOD RIDGE CHEMICAL CORPORATION
50 PARK PLACE EAST, WOOD-RIDGE, NEW JERSEY
WEbster 9-4600 (N. J.) CHickering 4-7892 (N. Y.)
Successor to F. W. Berk & Company, Inc.

Oils, Fats and Waxes

Sharp fluctuations in soybeans futures continued to dominate the vegetable oils market last week. Early declines in soybean oil were eradicated, the market rallying and closing fractionally higher. Cottonseed oil also closed stronger, regaining early declines. Corn oil was quiet, but remained unchanged and firm. Peanut oil continued unsettled and was slightly lower. Crude coconut oil developed a stronger tone and advanced ¼ cent on the Pacific coast and New York markets. Copra was also firmer, and shipments advanced $5 per ton. Consumer demand for edible oils continued restricted to actual needs.

An easier tone prevailed in tallow and greases. Moderate sales took place at ¼ cent lower. Soapers absorbed moderate lots at the decline. Export business was slow.

Activity in industrial oils was continued for delivery against former contracts. Linseed, oiticica, castor and tung oils moved in good volume against recent orders, while new business was still unsatisfactory. Tung oil was easier because of government sales made at ½ cent per pound below previous business, causing the market to decline about ¼ cent per pound. Refined tall oil was boosted 1 cent per pound, effective May 1 because of the higher cost of crude oil and active consuming demand.

Improved trading in linseed meal resulted in an advance of $1 per ton. Soybean meal was $1.50 per ton lower because buyers have switched to cottonseed and linseed meals, which are cheaper.

The Department of Agriculture has announced dates and other general provisions for price supports on 1961 crop soybeans and flaxseed. Soybeans support were recently set at national average of $2.30 per bushel and No. 1 flaxseed, $2.80 per bushel.

Soybeans for support must grade No. 4 or better and contain not more than 14 percent moisture. Loans and purchase agreements will be available from harvest time through January 31, 1962. Maturity dates for soybean loans will be May 31, 1962.

Flaxseed must grade No. 2 or better and be adequately stored. Loans and purchase agreements will be available through October 31, 1961 in Arizona and California and through January 31, 1962 in all other states. Loans will mature on January 31, 1962 in Arizona and California and March 31 in all other states.

Support prices for 1960 production were set at $1.85 per pushel for soybeans and $2.38 per bushel for flaxseed.

Price Trends

Advanced

Cocoa butter, 2c. per lb.
Coconut oil, crude, ¼c. per lb.
Copra, $5 per ton.
Linseed meal, $1 per ton.
Soybean oil, crude, ¼c. per lb.
Refd., ¼c. per lb.

Reduced

Greases, ¼c. per lb.
Peanut oil, crude, ⅛c. per lb.
Refd., ⅛c. per lb.
Soybean meal, $1.50 per ton.
Tallow, inedible, ¼c. per lb.
Tung, ¼c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	April 22, 1960
111.16	111.10	108.30	113.57

For Current Prices See Page 11

Vegetable Oils

Castor—This market remained unchanged and steady, reflecting firmness of Brazilian market. Trading was spotty. No. 1 Brazilian was maintained at 17¼c. per pound tankcars New York, prompt delivery. Domestic grades demand was confined to actual needs. Prices were unchanged.

Brazil's 1961 production of castor beans is expected to equal the record crop of last year, according to a Foreign Agricultural Service report released last week. The weather will greatly influence the yield. FAS said, but high bean prices could also increase the acreage planted.

According to Brazilian trade estimates, 1960 production was 226,000 short tons, an 18 percent increase from the 1957-59 average of about 191,000 tons. The carryover of beans from the 1960 crop is expected to keep the crushing industry busy through June, it was added.

Castor oil exports in 1960 were estimated at 45,000 tons, a 13 percent drop from the previous year. However, 1961 exports will probably be up because of heavy recent purchases by the USSR and several other eastern European countries.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	....	600,000
Previous week	....	1,174,000
Corresponding week, 1960	....	2,990,000
Total this year	....	23,458,000
Corresponding period, 1960	1,559,300	29,684,000

Coconut—Market was stronger, up ¼c. Crude was sold at 12c. per pound, tankcars, f.o.b. Pacific coast, prompt shipment and offered thereat. The New York market was higher at 13⅛c., tankcars, prompt delivery.

Corn—Crude continued steady at 17½c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined oil was unchanged at 21.23c., tankcars, New York, prompt delivery.

Cottonseed—Futures fluctuated with soybeans and scored fractional declines early last week, but rallied and closed moderately higher for the period. Trading was active. Market was firm, reflecting improved export interest from Mexico and other countries. Fully refined cotton oil was stronger and held at 18c. per pound, tankcars, New York, prompt delivery.

CCC has asked offers for 716,500 pounds of fully refined oil f.a.s. east coast and Gulf ports for relief purposes abroad. Delivery of oil in port areas should be made May 15, but not later than May 20.

Crude cottonseed oil held firm. Offers were light and quoted nominally at 14½c. per pound, tankcars, Valley, 14¼c. to 14½c., southeast and 14c., Waco.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, April 21, follow:

	Sales	High	Low	Close
		Cents per Pound		
May	1,353	16.30	15.39	16.30S
July	1,935	16.30	15.54	16.26S
Sept.	259	15.42	14.80	15.20S
Oct.	148	14.72	14.25	14.48S
Dec.	50	14.50	14.12	14.30S

Total sales and switches, 3,745 contracts.

Linseed—Withdrawals against current contracts were at moderately better pace and slight improvement was noted in sales of single carlots for spot shipment. Prices were unchanged. Raw oil, in tankcars, f.o.b., Minneapolis, quoted at 13.1c. per lb. for April-June; 13.30c., July-September; 14.22c., f.o.b., New York, prompt delivery.

Oiticica—Good movement was noted against current contracts. Market was steady. Tankcars were held at 14c. to 14½c. per pound, New York, prompt delivery. Drums were unchanged at 15½c. to 16c., spot, according to quantity.

Olive—Active buying continued for replacements for European account. Italy Spanish oil weekly and Greee recently contracted for 20,000 tons. Spanish oil remained firm at $53 to $54 per 100 kilos, drums, f.o.b. ports, prompt shipment. Tunisian oil was unchanged at $56.50 per 100 kilos, c. and f. New York, May shipment. The local market was quiet, ranging from $2.30 to $2.40 per gallon, drums, was reported taking about 4,000 tons of duty paid, exwarehouse, depending upon quantity.

Peanut—Market was easy and lower. Crude was sold at 14½c. and 14¾c. asked per pound, tankcars, f.o.b. mills, prompt shipment. Refined oil declined to 18c. per pound, tankcars, New York basis.

Soybean—Market was stronger, closing ¼c. higher, reflecting fluctuations in beans. Crude advanced to 13⅜c. per pound, tankcars, f.o.b. Decatur, unrestricted, prompt delivery. Refined salad was higher at 15⅝c., tankcars, New York basis.

The Spanish Ministry of Commerce confirmed the purchase of 12,500 metric tons of crude soybean oil at $270 per ton, bulk, c.i.f. Spanish port last week and

FATTY ACIDS

STEARIC ACID • OLEIC ACID
HYDROGENATED FATTY ACIDS
TALLOW FATTY ACIDS
HYDROGENATED GLYCERIDES
HYDROGENATED CASTOR OIL
12 HYDROXY STEARIC ACID

HARCHEM
CENTURY BRAND
HARCHEM DIVISION
WALLACE & TIERNAN, INC.
25 MAIN STREET, BELLEVILLE 9, NEW JERSEY
IN CANADA: HARCHEM LIMITED TORONTO

WARWICK WAXES
SHAMROCK CHEMICALS CORPORATION
420 Lexington Ave., N. Y. 17, N. Y. • ORegon 9-2550

AMERICAN MONTAN WAX
ALPCO
CONSIDER THAT
ALPCO WAX . . .
✓ is guaranteed to be uniform
✓ is free from import restrictions
✓ is price stabilized
✓ is stocked at convenient points
✓ is offered with technical advice
REFINED GRADES (decolorized) NOW AVAILABLE
Produced in California by:
AMERICAN LIGNITE PRODUCTS COMPANY, INC.
IONE, CALIFORNIA
Sales Offices: 110 E. 42nd St.—RM 1211—New York City 17 • Ione, Calif.

ARMOUR IDEA CHEMICALS

NEO-FAT® 16
COMMERCIALLY PURE
PALMITIC ACID

NEO-FAT® 16-54
EUTECTIC
PALMITIC-STEARIC

These fractionated long-chain acids from Armour are delivered pure and uniform. Typical applications are in soaps, esters, textiles, plasticizers, cosmetics, greases. Also available in food grade. Investigate—an idea for improving your products may be the result. Write:

Armour Industrial Chemical Company
one of The Armour Chemical Industries
110 N. Wacker Drive • Chicago 6, Illinois

PRICE
QUALITY
SERVICE

LEADING SOURCE for

Sesame Oil USP
Edible Safflower Oil
Apricot Kernel Oil USP
Peanut Oil USP
Corn Oil USP
Cottonseed Oil USP
Walnut Oil
Poppyseed Oil

WELCH HOLME & CLARK CO., INC.
One Hudson St., N. Y. 13, N. Y.
BA 7-4465

The SPECIAL WAX you're looking for

If your problem calls for hardness, solvent retention, chemical inertness, solubility in hot solvents, compatability with dyes and other waxes, emulsifiability, water insolubility, ease of saponification, electrical insulating capacity and low cost—then you need

RIEBECK®
ROMONTA®
MONTAN WAX

Also available are Bonauba & Carbacote Technical Carnaubas, Candelilla, Bayberry, Japan, Beeswax, Spermaceti, and "custom blended" Waxes.

Write today for FREE sample and specifications.

Strohmeyer & Arpe Co.
139 Franklin Street, New York 13, N.Y.

For Domestic and Export
COTTONSEED MEAL AND CAKE
PEANUT MEAL - SOYABEAN MEAL

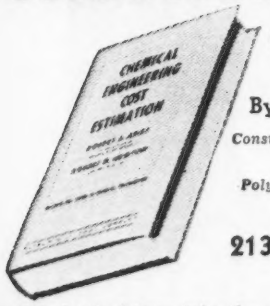
Export Codes: ABC 5th, BENTLEY'S JUNIOR PEERLESS

Cable Address: BRODE

Phones: L. D. 271 — Local 38-2544
Teletype No. ME-260

THE BRODE CORPORATION
P. O. Box 700 1012 Falls Building
MEMPHIS, TENNESSEE

CHEMICAL ENGINEERING COST ESTIMATION



By ROBERT S. ARIES and ROBERT D. NEWTON

Consulting Engineer and Economist
Adjunct Professor of
Chemical Engineering
Polytechnic Institute of Brooklyn

Manager, Operations Research-Production Division
Charles Pfizer & Co., Inc.

213 pages, 6 x 9, 88 illustrations, 60 tables, $6.50

The book delves into the principles affecting cost estimation and evaluation, and explains them in straightforward terms. It tells how to appraise the many cost factors involved in construction or reorganization of new plants or processes.

Effect of plant size and location and operating level upon costs is discussed, and you are shown how to recommend the kind of advantageous plant location that will enable your company to assemble materials, process them, and deliver the product to customers at minimum cost.

The book shows where construction dollars, go and tells how to find out what contractors' fees and contingency charges are likely to be for a new plant.

Economics and cost estimates

You are shown how to calculate variation of investment, cost, and sales price over entire range of operation. Investment and profit factors, direct, indirect, and fixed costs, together with pay-out times and break-even points, are covered.

Manufacturing expenses are thoroughly gone into. The book lists steam, power, and process water requirements for various processes, for instance, together with utility rates to aid in figuring total costs. Charts, tables, and graphs of equipment and process costs make it easy to obtain speedy cost estimates.

You are told how to allow for supervision and maintenance costs, labor requirements, and other factory overhead expenses for various equipment and processes.

General expenses of running a business are considered, and costs arising from administration, sales, research, and finance departments are outlined.

How to evaluate cost estimates

The book pinpoints the factors from which components of capital investment, manufacturing cost, and general expense are ascertained, and tells how to evaluate the relative part each component plays in the overall picture.

The practical methods for more accurate cost estimation, and the wealth of quantitative data contained in the book, will prove its worth in every phase of development, processing, and production.

Send your order with remittance to:

SCHNELL PUBLISHING COMPANY, INC.
30 CHURCH STREET NEW YORK 7, N. Y.

Oils, Fats and Waxes

37,500 tons (of refined soybean oil) at $310 per ton, same basis, for shipment during May-July.

Chile was authorized to purchase 10,400 tons of soybean or cottonseed oil under PL 480 last week. Contracts made between April 24 and August 31 will be eligible for financing and shipments April 24 through September 30.

Tall—Refined grades were stronger, reflecting the scarcity of crude and active consuming demand. An advance of 1c. per pound was announced, effective May 1 for refined, which will boost prices to 7½c. to 8½c. per pound, tankcars, f.o.b. works, depending upon grade. Distilled grades were unchanged, but firmer, ranging from 5¼c. to 8c., same basis. Crude oil was scarce and firm at the recent advance to 3¼c. per pound, tankcars, f.o.b. works with occasional sales reported ¼c. higher.

Tung—This market was easier because of lower cost of government owned oil. CCC accepted lower bids for tung oil and sold 300,000 pounds at 26½c. per pound, bulk, f.o.b. Marrero, La., compared with previous sales of ½c. more. Consuming interest was slow. Tankcars were lower and nominal at 27c. per pound, New York, for prompt delivery. Domestic was also nominal at 27c., tankcars, f.o.b. mills. Drums ranged from 28½c. to 29c., spot, depending upon quantity.

Miscellaneous

Cocoa Butter—Prices advanced 2c. to 55c. to 60c. per pound, spot as to quantity.

Copra—Prompt shipments were firmer, advancing to $165 per ton, c.i.f. Pacific coast, with bids at $5 less.

Flaxseed—Bids on cash flaxseed were unchanged at $3.12 a bushel, spot and to-arrive, basis Minneapolis, not reflecting declines in futures at Minneapolis and Winnipeg. Offerings were sufficient to meet the good demand from crushers and terminal interests, helped by the opening of navigation. Head of the lakes bids were 2c. under Minneapolis.

Fats and Greases

Greases—An easier tone developed and prices were off ¼c. per pound. Trading was moderate. Yellow grease was quoted at 7⅝c. per pound, tankcars, delivered. Choice was nominal at 9⅜c., same basis.

Lard—Market was unsettled and off 1c. Cash lard was reduced 12½c. per pound, drums, Chicago.

Tallow—Trading improved at lower levels, all grades were off ¼c. Soapers absorbed moderate lots of bleachable fancy at 8⅛c. per pound, tankcars, delivered. Sales also took place in guaranteed fancy at 8⅜c., same basis. Prime was lower at 7⅞c.; special, 7¾c. and No. 1, 7⅝c., same basis. Export interest lagged. Guaranteed fancy was nominal at 8⅞c. per pound, bulk, f.o.b. steamer and 1c. higher for drums, f.a.s.

Cake and Meal

Linseed Meal—Demand for linseed meal increased substantially, reflecting additional substitutions for soybean meal. Prices advanced $1 a ton in the face of extremely heavy production. Most business was for needs a week or two ahead but better interest was evident in May-July shipment. Withdrawals against old contracts were accelerated, shipping schedules crowded. Extracted meal, 34 percent protein, was held at $55 a ton, bulk, in carlots, f.o.b. Minneapolis. Old process expeller meal was firm at $59.50, April-June, and $60.50 for July-August.

Soybean Meal—Prices in this market fluctuated widely along with soybeans and meal futures. Unrestricted meal declined $1.50 and similar reductions were posted in all areas, eastern trunk line comparatively firm. Demand was slower as increasing number of formula feed manufacturers substituted linseed and cottonseed meal. Cottonseed meal continued to move freely into Iowa. Meal, 44 percent protein, was held at $74 a ton, unrestricted, bulk, Decatur, prompt delivery.

Waxes, Vegetables

Trading in vegetable waxes continued spotty, last week and restricted to actual needs. Volume of business transacted was also smaller than a week ago.

Carnauba grades were less active than the previous week. Prices were unchanged and none too steady because of selling pressure. Interest in replacements from Brazil was also inactive as buyers showing little interest in freer offerings. No. 3 Ceara crude ranged from 59c. to 61c. per pound, spot delivery, as to quantity. No. 1 Parnahyba was held at 2c. higher. Yellows were quiet and fairly steady. No. 1 Ceara was held at 82c. to 84c., spot, depending upon seller and quantity, while No. 1 parnahyba was quoted 3c. more.

There was little doing in crude beeswax. Prices were unchanged at the recent decline of 1c. per pound, because of increased offers for shipment. Refined beeswax, however, was unchanged and firmly held for all grades.

Common Market

—Continued from page 4

was encouraged at high prices, whereas the Benelux countries and West Germany favor low-priced oilseeds and fats.

Then, FAS goes on to ask: If the newly-independent countries of West Africa link their economies with those of the Common Market, would support of their fats and oils be borne by France or by all of the six, and how would it be financed?

The Congo offers no such problem; its exports have not been supported and are competitive. Besides, it would be protected by the proposed 9 percent duty on palm oils, compared with a duty of 10 percent on competing oils.

Olive oil production in Italy is a high-cost industry, highly protected against competing vegetable oils. The share of olive oil in Italy's total consumption of edible oil ranges from 45 to 65 percent.

As a member of the Common Market, however, Italy must lower its internal trade barriers against other members. These countries could then profitably ship vegetable oils to Italy, and this would decrease the prices received by the olive oil industry, the government organization notes.

Italian Olive Problem

A further complication is the fact that olives are raised in southern Italy, an area of chronic underemployment and low incomes. The expectation is that the problem will be handled locally rather than on a six-country basis.

Butter production in the Common Market area has risen rapidly in the last few years, and this rise is expected to continue, since the proposed dairy plan is likely to encourage the production of milk.

Yet margarine is important in the diets of the Benelux countries and West Germany; and margarine manufacturers fear that further rises in butter production will lead to restrictions on other fats and oils and on margarine.

It appears, however, that at least initially there will be no discrimination against imported fats and oils to protect butter.

Rapeseed is the only important oilseed, besides olives, that the Common Market countries raise. West Germany and France support its production at high prices.

The German government adds a further support by requiring margarine manufacturers to buy rapeseed oil equivalent to 5 percent of the total oil used in margarine production.

Since rapeseed output is minor compared with total fats and oils imports, this problem is likely to be solved without import restrictions.

Manufacturers of
"CORONA" LUXURY BRAND LANOLIN ANHYDROUS USP
"NOVOL" COSMETIC OLEYL ALCOHOL SUPERFINE COSMETIC LANOLIN USP
"HARTOLAN" WOOL WAX ALCOHOLS BP
POLAWAX SELF-EMULSIFYING WAX
"FLUILAN" LIQUID LANOLIN
"PROTANAL" Sodium ALGINATE
"CRODACOL" CETYL, STEARYL OLEYL ALCOHOLS

Croda INC.
15 E. 26 St. • New York 10, N.Y.
Tel. MUrray Hill 3-3089
Cables: CRODAFAS, NEW YORK
Subsidiary:
Hummel Lanolin Corp.
185 Foundry St.
Newark 5
N. J.

PLASTICS SALES MANAGER: Robert S. Temple, appointed sales manager for plastics by Vaichem, the chemical division of United Merchants & Manufacturers, Inc., New York.

Krebiozen Appraisal Slated By National Cancer Institute

National Cancer Institute is to make a "thorough evaluation and comprehensive research study" of the controversial drug Krebiozen for the treatment of cancer.

As a result, Judge Julius H. Miner in the Chicago Federal District Court last week declared a mistrial in the libel suit brought by Dr. Andrew C. Ivy, developer of the drug, against Dr. George D. Stoddard, one of its critics.

The institute's review of the work on the drug is being undertaken at the request of Judge Miner who informed Secretary Abraham Ribicoff of the Department of Health, Education & Welfare that he had the promise of the litigants in open court to give the institute their "unqualified, unlimited and complete cooperation throughout the study."

He noted that this was old controversy with his department, stating that the Food & Drug Administration is presently considering a new drug application for Krebiozen.

If, however, it turns out as suspected that the drug is a biological, it will become subject to license by the Public Health Service under the biologics control law.

An application will have to be made to PHS, which will evaluate the safety, potency and other factors incident to issuance of a license under this law.

Oral Vaccine

—*Continued from page 4*

der the supervision of the Dauphin Medical Society.

Another program is slated to start in Boston today (April 24) under the supervision of city health authorities.

Apart from these studies, Sabin vaccine has been previously been administered some 300,000 Americans and to about 70 million people overseas.

Mr. McKeen also disclosed that a field study of a new Pfizer vaccine for measles is now under way. Developed at Pfizer's biologics center near Terre Haute, Ind., it uses a measles strain originally isolated by Dr. John F. Enders, professor of bacteriology and immunology at the Children's Medical Center, Harvard Medical School.

"It is too early to at this time to evaluate the ultimate usefulness of the Pfizer measles vaccine," Mr. McKeen said, "although results from animal studies and previous small-scale trials in humans are encouraging."

A field trial with some 750 school children in Buffalo, N. Y., is now under way, and the vaccine's protective effect is being studied by the county health department and medical experts of the University of Buffalo.

Natural Gas Products

—*Continued from page 5*

County, and will process gas from the Hennessey and Dover fields.

Conoco recently acquired susbtantial producing properties and non-producing leases in Kingfisher County from Calvert Petroleum Company of Tulsa.

Conoco also plans to build a three-story building in Ponca City, Okla., to house its new central computer department and the company's process center.

Work on the Ponca City structure, which will be some eighty miles northeast of the Hennessey natural gas products plant, will start in July, with completion scheduled for early in 1962.

Virginia Chemicals Selling Stock for Expansion Program

Virginia Chemicals & Smelting Company wants to sell 135,000 shares of common stock in order to raise funds for the expansion of its research and production facilities.

The company has just filed a registration statement with the Securities & Exchange Commission, and announced that it expects the public offering will take place in the early part of June.

Of the shares being offered, 50,000 will be for the account of the company and 85,000 for certain selling stockholders. None of the proceeds from the latter shares will be received by the company.

MM&R Elevates Four

Magnus, Mabee & Reynard, Inc., New York reports the following staff appointments: Dominick E. Bellavigna, director of production; Donald L. Cumming, director of technical correspondence; Gosta Hedstrom, director of analytical control and Walter J. Senyszyn, director of perfume research. The appointments are in connection with an intensified program of research and development.

WAXES

M. ARGÜESO & CO. INC.
441 Waverly Ave., Mamaroneck, N.Y.
Owens 8-8500 • Cable: MARGUESO • Established 1908

Importers and Refiners
CARNAUBA • OURICURY
CANDELILLA • BEESWAX
Crude • Refined • Bleached • Flaked • Powdered
MAMARONECK REFINED BRAND
Vegetable Waxes
CERESINS — OZOKERITES
Palm Waxes — Resin Blends
Compounds and blends made to your specifications
CERITA WAXES

"What a whale of a difference Sperm Oil makes"
SELF EMULSIFIABLE SPERM OIL
WERNER G. SMITH
1200 TRAIN AVENUE
CLEVELAND 13, OHIO

COLORLESSNESS *begins with Emery Oleic Acids*

To obtain a light color in any product, it is easier to start with white or colorless basic ingredients. It's costly and often impossible to remove color later. Emery gives you the colorless raw materials you need.—Emersol® 233 LL Oleic Acid and Emersol 221 Low Titer White Oleic Acid.

When you start with colorlessness, you can add as little or as much color as you wish. And the remarkable color stability of Emersol Oleic Acids, as assured by product specifications, minimizes color changes during processing and throughout shelf life. If the oleic acid you are now using cannot meet these specifications, why not let us send you samples that can, time after time? It costs you no more for this extra quality.

Write Dept. 0-4 for samples or 20 page comprehensive booklet "Oleic Acid Emeryfacts."

COLOR SPECIFICATIONS	Maximum Color		Maximum Color Stability	
	Photo. Index	Lovibond 5¼" (Y/R)	Photo. Index	Lovibond 5¼" (Y/R)
Emersol 233 LL Oleic Acid	11/0.5	3/0.5	32/4.5	10/3
Emersol 221 Low Titer White Oleic Acid	15/0.5	5.0/0.5	51/10.5	20/7

A little extra everything except price

Emery
FATTY ACID DIVISION

Emery Industries, Inc., Carew Tower, Cincinnati 2, Ohio • Vopcolene Division, Los Angeles, Calif. • Emery Industries (Canada) Ltd., London, Ontario • Export Division, Cincinnati, Ohio

Pyrethrum, a Dull Market Item in Early Fifties, May Hit $15 Million in Sales

OPD 'Depth' Report on Pyrethrum

—*Continued from page 3*

sales of 141,808 pounds, a total consumption figure of 797,753 pounds was reached for 1960.

In 1959, total imports (extract plus flowers reduced to an extract basis) added to government stockpile - releases amounting to 66,000 pounds, was only 671,587 pounds by comparison.

It might be said that the government released considerably more during 1960 than 1959; hence the extra-large total. But the point is that the extra quantity was readily consumed.

This large jump in consumption took place despite the destruction of one of the largest pyrethrum plants in February, 1960, in Nairobi, Kenya.

The Mitchell Cotts Extraction Unit

The Mitchell Cotts, Ltd., extraction unit there, capable of processing 6,000 tons of pyrethrum flowers into extract per year, was demolished by an explosion and didn't return to production until December.

However, the rapid 1959-60 surge of pyrethrum consumption is not the precursor of an unbridled growth rate, some in the trade say. In fact, there are two camps; adherents to one saying that this is just the beginning and members of the other just as firmly vowing that 1960 represents the end of a three-year growth pattern.

One luke-warm forecaster says he'd be "amazed" if the daisy-derived insecticide grew at the rate of as much as 5 percent per year by 1965.

He says the industry is too complacent; it just sits back and gloats about fast knockdown, safety for human beings and no insect resistance.

"No matter what properties pyrethrum has, you've got to get out and sell it," he maintains. His contention is that the home gardening market is far from saturated and here is where pyrethrum could score most heavily.

In the first place, the home gardener is not interested primarily in price. His garden is a hobby and his only real goal is to make it look pretty. If insects threaten his roses, he is willing to do anything to save them.

He is also interested in an insecticide with fast knockdown and a high degree of safety where children and pets are concerned.

The Factor of Insect Resistance

The fact that insects won't become resistant to pyrethrum sprays won't sell him on it, but that characteristic will certainly weigh in pyrethrum's favor.

Of course, pyrethrum suppliers would like to see formulators use more of their material in garden sprays. The home gardener, they say, is willing to pay for a premium product—why not give it to him?

They chide formulators for putting the barest minimum of pyrethrins in their products for economy's sake. Put in higher ratios, they urge, increase your safety factor and raise knockdown potential and, although the formulation's cost might be increased, it will still sell.

Other areas that should account for a good deal of growth in pyrethrum are in dairies, various food processing plants, grain storage and anywhere the insecticide is likely to come in direct contact with edible products.

Another natural for pyrethrum is in air sprays. Materials toxic to humans should not be used in most air sprays and it's believed that more effective advertising and more aggressive selling could push pyrethrum sales in this market.

However, it's generally conceded that pyrethrum's high cost ($55 per pound) is its key stumbling block.

Synthetics are cheaper and in many cases more effective. It is true that most of the synthetics must be used with quite a bit more caution than pyrethrum, but this does not preclude the use of these synthetics.

Farmers, pest control operators and other large insecticide users are expected to continue to use primarily the cheaper synthetics. They will simply follow the directions on the package to avoid injury to warm-blooded animals.

Cost is such an important factor to the volume user that he will switch from one synthetic to another when his insects become resistant rather than change to pyrethrum.

(Even this resistance factor could disappear. Although very little insect resistance to pyrethrum has ever been observed, it is within the realm of possibility that this could be altered with widespread usage, say very cautious entomologists.)

Volume users are also interested in residual effect, which pyrethrum is not noted for.

Even the pro-pyrethrum spokesmen admit that they don't anticipate a price reduction within the foreseeable future. Of course, if supply greatly exceeded demand, the market would weaken.

Cheap Farm Labor Is Disappearing

This would be very likely be balanced by a rise in actual cost of production, however, since cheap farm labor is rapidly becoming a thing of the past.

The flowers must be picked by hand since they do not all bloom at the same time, and it is unlikely that a machine could ever be developed to do the harvesting.

Then, too, the future of the world's producing regions is moot. From the standpoint of horticulture, pyrethrum flowers may be grown in countless areas of the world.

The content of pyrethrins, however, is practically nil unless it is grown in a suitable climate.

The most suitable climate is said to be a cool but frost-free place with a great amount of moisture comparable to tropical rainfall. The sun must be warm and frequent.

The ideal areas are those in the mountainous regions around the equator, principally in Africa and South America. By some freak soil and weather conditions, material also may be grown in Japan and Yugoslavia, but the content of pyrethrins is low.

According to US government tabulations, the average pyrethrins content is as follows: Belgian Congo area—1.5 percent; British East Africa—1.5 percent; Ecuador—1.5 percent; Japan—0.9 percent, and Yugoslavia—0.7 percent.

Considerably more than 90 percent of the pyrethrum in US insecticides comes from Kenya with small amounts coming from Tanganyika and central Africa.

At the present time, however, extraction in Goma, in the Kivu section of the Republic of the Congo, has been discontinued. According to an importer recently returned from Africa, the plantings in the Kivu are being tended by the workers and they could resume extraction at a moment's notice.

At one time it was reported that flowers from the Kivu were being sent to be extracted in Kenya.

In fact, there has been such an influx of flowers to these plants that Fairfield Chemicals, a division of Food Machinery & Chemical Corporation, last week reactivated its Baltimore extraction plant to take care of the overflow.

Right now the situation in central Africa is far from stable and it is anybody's guess when operations will return to normal.

Some hopefuls expect a weak central government and strong provincial governments will emerge from the present political upheaval and that these provincial governments will see to it that pyrethrum production is resumed.

There are those, however, who not only expect the Congo area to be unstable for an indefinite period of time, but they fear that the nationalism will spread to other areas and disrupt pyrethrum production in Tanganyika and Kenya.

The likelihood of this happening does not seem great, but some spokesmen take it into consideration when they speculate on future world production.

These same spokesmen consider Ecuador, Brazil and Peru as good safety valves. Others, however, look upon South America as the continent in which there will be the greatest percentage of increase in production.

Ecuador, Brazil and Peru

There is now an extraction plant in Ecuador and one in Brazil and, within four or five years, it is expected that a plant will be built in Peru.

Japan, which had a virtual monopoly on pyrethrum flowers early in the twentieth century, is hardly a factor in the world market now.

As mentioned, Japanese material is of a low quality. The bulk of it is used domestically with small amounts being shipped to such places as Communist China, Thailand and Hong Kong.

Yugoslavia, while it may ship some to communist countries, is also an insignificant factor in the world market.

When certain chemicals are combined with pyrethrum, the total effectiveness of this combination against various insects is greater than it would be expected from the mere additive effect of each chemical alone.

These are called synergists. The most widely used synergist used today is Fairfield Chemicals' piperonyl butoxide; second is McLaughlin Gormley King Company's "MGK-264," and third, S. B. Penick & Co.'s "Sulfoxide."

These synergists compete mainly on the basis of price and seem to be satisfactory for present needs. A German synergist was developed by Badische Anilin-u. Soda Fabrik but the consensus is that the BASF product won't find markets here.

Research to get a better synergist is not nearly so intensive as research to get a replacement for pyrethrum itself.

When asked which insecticides he expected pyrethrum to replace during the next few years, one industry man said, "I'm not worried about what pyrethrum's going to replace. I'm worried about what's going to replace pyrethrum."

It is felt, in some quarters, that so much money is being spent, both by private industry and by the federal government, to perfect a synthetic pyrethrum, that something is almost bound to come out of it.

Using a reverse type of reasoning, others feel that so much money has been spent, for so many years, that if anything were going to be developed, it would already have happened.

Such a product would have to have pyrethrum's fast knockdown, safety to warm-blooded animals and non-resistance characteristics. It also would have to sell for about half what pyrethrum now is selling for.

What About Allethrin?

Allethrin, a "synthetic pyrethrum," has been on the market for some time, but it does not synergize well, does not have fast knockdown, nor is it very effective on flies and cockroaches. It is said to be effective on mosquitoes.

Hence it looks like nature's own insecticide, pyrethrum, will continue to be a factor in future markets despite its cost disadvantage, chiefly because it is effective and safe.

Growth areas are well delineated: home gardening, dairies, food-processing plants, grain storage areas. Insect resistance to synthetic organic insecticides and plain old-fashioned hard-sell techniques could push sales up rapidly in the next five years.

This optimism is in the face of some imponderables: General growth of insecticides; political conditions in growing areas; possibility of insect resistance, and the assumption that no synthetic with all of pyrethrum's properties will be developed.

PYRETHRUM EXTRACTION UNIT CAPACITY

Africa Has Nine-Tenths of World Total

Producer	Location	Capacity*
Kenya:		
East African Extract (1)	Nairobi	6,000 long tons/year
Pyrethrum Board (2)	Nakuru	6,000 long tons/year
Pyrethrum Board	Nakuru	4,080 long tons/year
Congo:		
Trapac (3)	Goma	3,000 long tons/year
Tanganyika:		
East African Extract (4)	—	3,000 long tons/year
Total		22,080 long tons/year

*Figures represent quantity of flowers plants are capable of processing. (1) East African Extract Corporation, Ltd., an affiliate of Mitchell Cotts & Co. (2) Pyrethrum Board of Kenya. On-stream date for this plant: July, 1961. Eventual expansion to 9,000 tons per year planned. (3) Societe pour le Traitement des Produits Agricoles, located in Kivu Province. Plant now inoperative due to political situation. (4) Planned for late 1962; site not yet chosen.

PYRETHRUM PRICES

1961	$55 per lb.
1960	$55 per lb.
1959	$55 per lb.
1958	$50 per lb.
1957	$50 per lb.
1956	$50 per lb.
1955	$49 per lb.
1954	$50 per lb.

Prices on 100 percent basis

Pyrethrum Reprints Ready Soon

OPD's special "depth" report on pyrethrum is being reprinted and will be available shortly. Copies may be obtained at 50 cents each (discounts on quantities of a hundred) from OIL, PAINT AND DRUG REPORTER'S Reprint Department, 30 Church Street, New York 7.

Agricultural Chemicals

Adverse weather conditions over much of the US last week, drastically reduced fertilizer shipments as farmers were forced to postpone their direct application operations. Snow in the north central states, rain in most other sections of the country combined to toss a wet blanket on farmers' fertilizer intentions. The reduction in fertilizer applications was reported to have cut shipments substantially.

While producers expect to make up their washed-out business, some will go down the drain despite late season efforts. Warm dry weather at the beginning of the season encourages large-scale fertilizer operations. This was underscored by producers who reported that fertilizer shipments a few weeks ago were moving at brisk rates.

Shipments of ammonia, nitrogen solutions, ammonium nitrate and ammonium sulfate were all reported moving well when farmers fertilizer operations were in full swing. Indications for the rest of the season are promising: many fertilizer formulators expect full operating schedules for the late-spring and summer months.

Listings for agricultural grade urea are reported to be holding unchanged from the levels established a few months ago. Feed grade urea however, is reported to be under some pressure to shade listings, sources report. Despite the lower urea listings, placing it on a competitive price level with ammonium nitrate, no great improvement in market conditions is reported.

West coast potash listings were announced last week. The new schedule calls for increases of $1.80 to $1.83 per ton for muriate of potash and $1.50 per ton of sulfate of potash. The new schedule covers the fertilizer year July-June, 1962, and is taken by some in the trade as an indication that potash prices may be in for an across the board increase when other producers announce their schedules.

Ammonium Sulfate—Supplies of ammonium sulfate continue to be squeezed by the combined weight of the increased demand for fertilizer grade material and the reduced output from steel's cokeovens. The overall effect has been to inhibit sales of fertilizer grade ammonium sulfate, sources report. Despite the tight supply situation contract prices in effect since the beginning of the 1960 fertilizer season remain in effect. Spot prices however, have been reported in some quarters as reflecting the scarcity of material.

Imports of ammonium sulfate in 1960 were made in about the same quantities as in 1959, both years of reduced domestic cokeoven output. Last year, 211,351 tons of ammonium sulfate were imported. Customs reports that the value of inshipments was $7,368,953. Principal exporter was Canada, shipping 137,037 tons. Other countries shipping sulfate were: West Germany, 54,558 tons, Belgium, 17,028 tons and the Netherlands with 2,728 tons.

Animal Proteins—The market for fishmeal and scrap continues to show strength with prices for meal in the range of $102-$105 per ton for bagged material on both Gulf and West coasts. Supplies are about normal for this time of the year.

Formula feed business showed some signs of improvement in the past weeks. Movement of feeds is reported to be at good levels although some fears were expressed on over-production of broilers where considerable feed sales are made.

Potash—Increases of $1.80 to $1.83 per ton on potash muriate and $1.50 per ton for sulfate of muriate were announced last week by a west coast-based potash producer. The schedule covers potash on the west coast produced exclusively, for the fertilizer year July 1 through June 30, 1962.

New prices for improved muriate per unit K_2O are:

- 44c. per unit for July-August delivery.
- 45c. per unit for Sept.-Oct. delivery.
- 46c. per unit for Nov.-Dec. delivery.
- 48½c. per unit for Jan.-June delivery.

Granular muriate of potash listings are uniformly one cent per unit higher.

New prices (bulk, f.o.b. works) for sulfate of potash are:

- 76c. per unit for July-Sept.
- 81c. per unit for Oct.-Dec.
- 84c. per unit Jan.-June.

The higher listings for potash produced on the west coast indicate to some in the trade that listings may go correspondingly higher when the New Mexico-based producers announce their listings for the rest of the country in the next few months.

In announcing their new schedule, a spokesman for the company pointed out that the price increases were in effect the first since 1957. In the past three years, costs of production have risen to a point where adjustments had to be made.

Urea—Market for agricultural grade urea is reported to have firmed up somewhat in the past few weeks but producers report that the overall improvement remains marginal. Listings at $92.50 a ton for agricultural grade show signs of stability but sources report that some pressure to shade on feed grade is being felt in the trade.

Despite the price competitiveness of urea with ammonium nitrate as a source of nitrogen for fertilizer formulators, sources indicate that urea's attractiveness on that level is not taking much or only marginal business from the nitrate.

Price Trends

Advanced

Reduced

None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	April 22, 1960
111.65	111.65	111.00	109.97

For Current Prices See Page 11

Farm Chemicals Imports: 1960

Following are data compiled by the Bureau of Census indicating volume of imports of agricultural chemicals for 1960 and 1959. Figures for ammonium phosphates and fishmeal and scrap account only for that material intended for use as fertilizer. All figures are in short tons.

	1960	1959*
Ammonium nitrate (over 32 percent N)	9,690,094	341,037[1]
Ammonium nitrate (32 percent N or less)	73,273	N.A.
Ammonium phosphate	119,937	215,707
Ammonium sulfate	211,351	217,564
Calcium cyanamide	44,100	58,400
Castor bean pomace	15,205	13,601
Dried blood	4,604	50,117
Fishmeal and scrap	23,633	15,865
Guano	2,009	40,183
Nitrogen Solutions	50,174	—[2]
Peatmoss (fert. grade)	254,794	277,006
Phosphates, crude[3]	144,805	156,002[4]
Potassium chloride, crude	327,525	334,792
Potassium nitrate, crude	2,965	563
Potassium sulfate, crude	65,109	132,308
Sodium nitrate, crude and refined	355,112	420,808
Urea	82,134	58,930

* Based on monthly reports.
[1] Includes mixtures.
[2] Not reported in 1959.
[3] Including apatite and phosphate rock.
[4] Phosphate rock only.

CALL FOR DUVAL

For the finest service and quality!

• MURIATE OF POTASH
• SULPHUR

Produced by

DUVAL SULPHUR & POTASH CO.

EXCLUSIVE SALES AGENT
ASHCRAFT-WILKINSON COMPANY
ATLANTA, GEORGIA

DDT CUSTOM GRINDING

Air Milling, lightweight fertilizers, custom packing

LEBANON CHEMICAL CO.
P. O. 532, LEBANON, PENNA.

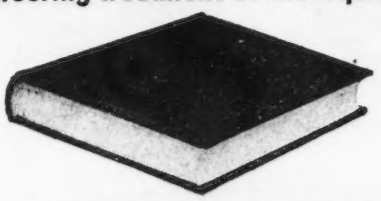
OPD REPRINTS
50¢ A COPY

PYRETHRUM
BHC • DDT

OIL, PAINT AND DRUG REPORTER
Reprint Department
30 Church Street, New York 7, N. Y.

MANUFACTURERS OF
COPPER SULFATE
Republic Chemical Corp.
94 Beekman St., New York 38
Telephone REctor 2-9810

an engineering treatment of the liquid extraction process



- advantages and disadvantages
- fundamentals
- methods
- applications

LIQUID EXTRACTION

By Robert E. Treybal, New York University

422 pages, 6 x 9, 265 illustrations, $9.50

HERE, for chemists, chemical engineers and others in the chemical industry, is a complete review and organization of the subject matter of the unit operation of liquid-liquid extraction. This unique volume not only sets forth the known facts concerning liquid extraction, but also outlines potentialities and limitations of applying extraction to separation problems. It correlates heretofore apparently unrelated data, gives detailed references to original sources of information, and many diagrams, essential equations, illustrative examples worked out in detail to insure understanding of material presented.

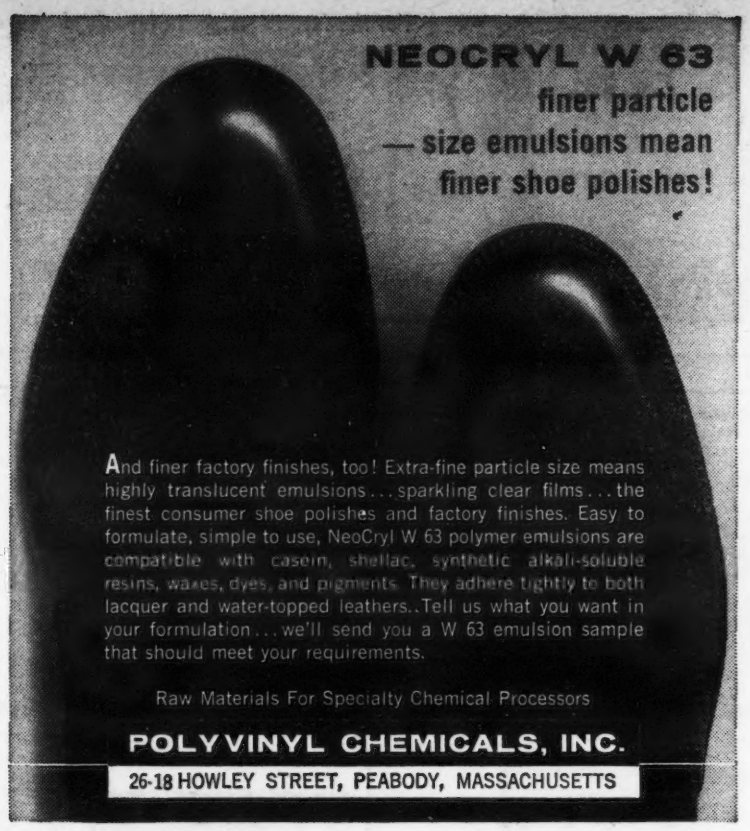
From the means of predicting equilibria—principles to follow in choosing a solvent for a liquid extraction process — through the methods of estimating diffusitives in liquid solution — to the design of extraction systems (including flowsheets and equipment) — and liquid-extraction processes used in industry, every important aspect of the subject is covered.

CONTENTS

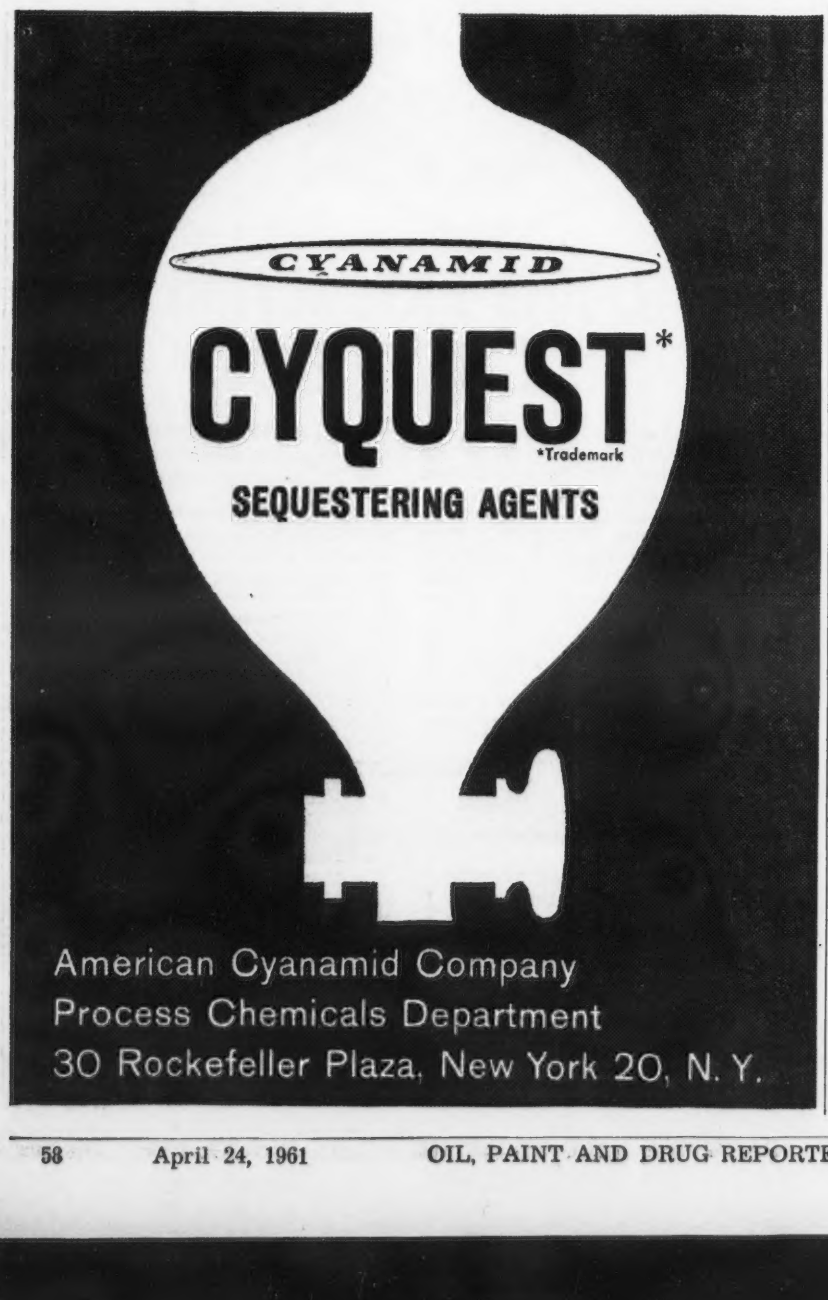
1. Introduction
2. Liquid Equilibria
3. Prediction of Distribution
4. Choice of Solvent
5. Diffusion and Mass Transfer
6. Methods of Calculations I. Stagewise Contact with a Single Solvent
7. Methods of Calculation II. Stagewise Contact with Mixed and Double Solvents
8. Methods of Calculation III. Continuous Countercurrent Contact
9. Equipment for Stagewise Contact
10. Equipment for Continuous Countercurrent Contact
11. Liquid-extraction Processes

Send your order with remittance to:

SCHNELL PUBLISHING COMPANY, INC.
30 CHURCH STREET NEW YORK 7, N. Y.


NEOCRYL W 63
finer particle
— size emulsions mean
finer shoe polishes!
And finer factory finishes, too! Extra-fine particle size means highly translucent emulsions... sparkling clear films... the finest consumer shoe polishes and factory finishes. Easy to formulate, simple to use, NeoCryl W 63 polymer emulsions are compatible with casein, shellac, synthetic alkali-soluble resins, waxes, dyes, and pigments. They adhere tightly to both lacquer and water-topped leathers. Tell us what you want in your formulation... we'll send you a W 63 emulsion sample that should meet your requirements.
Raw Materials For Specialty Chemical Processors
POLYVINYL CHEMICALS, INC.
26-18 HOWLEY STREET, PEABODY, MASSACHUSETTS

CHAS. L. READ & CO., INC.
30 JOURNAL SQUARE, JERSEY CITY 6, N. J.
Phone: NEW JERSEY OL. 6-2626 NEW YORK WO. 4-1131
THE GREATEST NAME IN TURPENTINE
GUM SPIRITS • STEAM DISTILLED • SULPHATE



Coating Materials

Metal derived pigments continue to be active in the coatings market. Cadmium pigments are scheduled to go up three to seven cents on May 15, according to the announcements made by two leading producers. Antimony oxide listings continued to show a three-and-a-half cent difference, depending on producer. Several producers are holding out against the recent increase, although the pressure to conform is mounting.

The increase on the cadmium pigments is closely linked with the recent advance on the metal. Producers of the cadmium pigments delayed their reaction to the 10 cent boost on the metal until the market showed some firmness at the higher level.

In announcing the price increases, producers reported that the level of business is currently running at about average levels. Their new schedule calls for a 3 cents per pound increase on the cadmium lithopones and 7 cents a pound on the concentrated pigments.

The casein market showed some improvement during the week. Trade sources report consumer business is improving with the renewed interest moving up quotations marginally. French casein was at 15¾ cents still below the price quoted for other imported caseins but much higher than a week earlier.

Other spot markets in the coating market continued quiet. Shellac business was reported to be on the rise but about normal for the time of the year. Prices were unchanged.

Lacquer materials, particularly the phthalate esters are reported to be in good balance as regards the supply/demand situation. Demand from industrial sources is reported to be at good rates.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	April 22, 1960
104.57	104.55	104.55	103.03

For Current Prices See Page 11

Prime Pigments

Antimony Oxide—Several producers continue to tenaciously resist pressure to boost their listings. While some producers are quoting 30c. a pound for carlot quantities of antimony oxide, a sizable part of the trade continues to do business at the old price of 26½c., despite the higher ore quotations in effect over the past month.

Contacted by OPD last week, the price-holding companies felt that the pressure to move listings was mounting. They base their reluctance to meet the premiums on ore on the desire to protect antimony consumers in this country. How long they can continue to extend this protection is another question that only time will tell. In the meantime, the split schedule on the antimony oxides will be quoted in OPD.

Cadmium Pigments—Cadmium pigments will be boosted 3c. to 7c. a pound, effective May 15 by at least two leading pigment producers. All cadmium pigments and lithopone colors will be increased 3c. while the concentrated types will go up 7c. a pound.

This would set the price for the cadmium lithopone yellows at $1.27 a pound with the concentrated shades at $3.02 a pound. Cadmium oranges will go to $1.73 a pound; red light shades, $1.80 a pound; red medium light shades, $1.88 a pound; red medium shades, $1.95 a pound; red dark shades, $2.03 a pound; maroon shades, $2.11 a pound.

Concentrated type orange will be newly quoted at $4.12 a pound; red light shade concentrated types $4.32 a pound; red medium light, $4.47 a pound, red medium, $4.62 a pound; red dark shade, $4.82; maroon concentrated shade, $5.02 a pound.

Cadmium selenide pigments are also to be boosted 3c. a pound. This would set light cadmium orange at $1.66 a pound; deep cadmium orange at $1.80 a pound; light cadmium red at $1.96 a pound; medium light cadmium red at $2.08 a pound; medium red at $2.31 a pound; dark cadmium red at $2.64 a pound; and cadmium maroon at $2.84 a pound.

Basis for the cadmium pigment price increase was the 10c. a pound boost on listings for the metal. That increase took place a few weeks ago but the trade delayed their reaction until the metal market exhibited stability at the higher level.

The cadmium pigment increase does not indicate any great spurt in demand. In fact, trade sources report that the current rate of business is about average. Producers do anticipate the usual spurt in business that comes with the announcement of a price increase. Consumers rush to complete purchasing before the new price deadline should beef-up sales in the next three weeks, but the market will probably return to its routine levels in the months ahead, sources report.

Chrome Colors—Output of chrome colors in February scored moderate gains reports the Bureau of Census. Production of chrome yellow and orange was placed at 1,654 short tons as against 1,539 short tons in January. Stocks of chrome yellow and orange on hand at producers' plant at the end of February were reported at 2,552 short tons, a slight improvement from the 2,552 short tons reported on producers' hands at the beginning of the month.

Molybdate chrome orange production hit 519 short tons in February compared to 393 short tons in the previous month. Stocks of molybdate chrome orange on hand went from 529 short tons at the beginning of the month to 610 short tons at the close of February.

Chrome oxide green output was not reported by Census to avoid disclosing figures of individual companies. Stocks were reported at 643 short tons at the end of the reported month, a slight decline from the 529 short tons on hand at the beginning of the month.

Miscellaneous

Casein—Imported casein is reported to be moving at slightly better levels in regard to both price and quantity. Trade sources see some basis for cautious optimism. Consumer business is generally improved, sources find. But are reluctant to talk of trends developing in the market.

Prices for Argentine casein were slightly higher for the week at 16c. to 16½c. a pound; Polish was reported moving at 16¼c. to 16½c. on the basis of later shipment. While no Australian casein is being produced at this time, some spot material held in the range of 18½c. to 18¾c. a pound.

European purchases of French casein is reported to be especially active at this time. The local quotation for French casein was quoted in the range of 15¾c. per pound, up from the low reported at week earlier.

Last week in this space it was noted that the French Ministry of Agriculture and other French casein officials are to meet to determine the subsidy level their casein will carry. No further word has been received on those meetings.

Fluorspar—Finished fluorspar produced from domestic sources totaled 211,000 short tons in 1960 and shipments of 230,000 tons were valued at approximately $10,397,000, according to reports of producers to the Bureau of Mines.

The 1960 production figures represent a moderate increase over 1959 when 195,000 tons were produced and 185,000 tons were shipped from domestic mines at a value of $8,680,000.

Imports for consumption in 1960 totaled 534,000 tons and decreased slightly from the previous year when similar imports amounted to 555,700 tons. Industrial usage of fluorspar totaled 649,000 tons in 1960 exceeding the record previously established in 1957, Mines reports.

Naval Stores

Production of gum naval stores during March, the last month of the 1960-61 crop year, was reported at 4,050 barrels of turpentine and 12,980 drums of rosin, according to the Crop Reporting Board.

Production for the 12 months ending March 31, 1961 totaled 118,950 barrels of gum turpentine and 370,150 drums of rosin, up about 11 percent from the previous season.

Output of other naval stores during the 1960-61 crop year and the percent change from the previous season follow: steam

Coating Materials

distilled turpentine 162,800 barrels, down 7 percent; sulfate turpentine 322,940 barrels, down 9 percent; steam distilled rosin 1,219,850 drums, up 2 percent; and tall oil rosin 419,960 drums, up 10 percent.

Stocks of gum and wood rosin turpentine on March 31, 1961 were down slightly from a month earlier. Gum rosin stocks on March 31, 1961 were down 10,620 drums from a month earlier, while wood rosin stocks were up 14,410 drums.

Coating Materials Briefs

PAINT MEN TO MEET: New York Society for Paint Technology and the New York Paint, Varnish & Lacquer Association are sponsoring a joint meeting whose theme is "Relationship Among Management, Sales and Technical Departments." The meeting will get under way 6 p.m. on May 4 at the Brass Rail Restaurant, 100 Park Avenue, New York.

RESIN IN TEST MARKET: A dispersed version of "Teflon," a fluorocarbon resin, is now available at $12 a pound under a test market program, reports E. I. duPont de Nemours & Co., Wilmington, Del. Coded "Teflon TE-9500 FEP," the dispersion is expected to find wide acceptance as a Class H impregnant and surface coating for wire and cable, component insulation, and in electrical and chemical applications.

SALES UNIT FORMED: Charles Gardner has formed Gardner Chemicals, Inc., to engage in the sales of chemicals as a manufacturers' representative to the paint, printing ink, plastics and rubber industries. Offices are located at 295 Madison Avenue, New York. Mr. Gardner was formerly manager of the paint chemical division of Witco Chemical Company, New York, and has over twenty years of technical and sales experience.

TALL OIL ROSIN REDUCED: Arizona Chemical Company, New York, has reduced its price for tall oil rosin to 12.15c. a pound in drums. This price change applies to both Arizona's Springhill, La., and Panama City, Fla. plants. According to a spokesman for the company, the price reduction was made to add stability to the rosin market.

Chemical Shipments

—Continued from page 7

on the continent are particularly favorable—from the point of view of technics or availability of raw materials.

This growing reciprocity was felt by the speaker to be highly desirable from all points of view.

In this connection, it was pointed out that US chemical exports to the Common Market were valued at $290 million in 1959, as against imports from the area worth only $140 million.

To profit from these new conditions, Mr. Solvay noted, many US enterprises have already been set up in the area and "such participation will steadily increase with the advance and modernization of our chemical potential."

Turning to the question of trade with the Soviets, Mr. Solvay denied that the growing exchange of products and chemical processes between western Europe and the USSR was due to the creation of the two economic groupings—the Common Market and the "Outer Seven."

Quite to the contrary, he maintained, "the USSR continues to draw profit from the present circumstances which provide that lack of unity in approach which is still evident in Western Europe."

Chemical Production Value*

	1965	1959
Western Europe:		
Common Market	21.0	11.0
Free Trade Area	8.0	6.0
US	34.0	25.7
USSR	25.0	9.6

* In billions of dollars.

The real danger, it was indicated, lies in the prospect that Russia may someday launch a chemical trade offensive against the west to serve Communist political purposes.

Against this eventuality, "a minimum of understanding and collaboration would seem to be indispensable to the western world."

Mr. Solvay estimated that at the growth rates currently prevailing in the West and in the Soviet zone, the combined chemical production of the US and Western Europe in 1965 would be two and one-half times that of the Soviets—as compared with five times in 1959.

Though the potential danger of this was not minimized, Mr. Solvay found in the Soviet emphasis on organic chemicals strong evidence that their chemical effort was being directed, for the present at least, toward an increase in the production of consumer goods.

Alum Dumping Complaint Turned Down by Treasury

Treasury Department last week rejected a complaint that anhydrous aluminum chloride is being dumped into the United States from Canada in violation of the antidumping law. The material originated with Welland Chemical Company of Canada, Ltd., Port Colborne, Ontario.

The department said that its investigations showed that the purchase price of the material in this country was less than that in the home market, but the quantities involved when this situation existed were such as to be insignificant. It said the company revised its price schedule and this situation no longer exists.

Elastomers Output

—Continued from page 7

million in 1959. The drop was attributed to smaller output of cyclic and acyclic accelerators during the year.

Sales of rubber-processing chemicals amounted to 153 million pounds, valued at $101 million, as against 159 million pounds, valued at $102 million in 1959.

Production of cyclic elastomers, which consisted chiefly of the polybutadienestyrene (S-type), amounted to 2,283 million pounds in 1960, compared with 2,213 million pounds in 1959.

Sales of these elastomers amounted to 1,949 million pounds, valued at $469 million, compared with 2,006 million pounds, valued at $463 million, in 1959. In the commission's report, data are shown separately for polyurethane type elastomers; production of such elastomers in 1960 totaled 6.8 million pounds.

Production of acyclic elastomers, including neoprene, butyl, N-type, silicone and other types, amounted to 669 million pounds in 1960, compared with 613 million pounds in 1959—an increase of 9.1 percent. Sales amounted to 602 million pounds, valued at $229 million, compared with 594 million pounds, valued at $230 million, in 1959.

Cyclic Chemicals Down

In the report, data for silicone type elastomers are shown separately; production in 1960 totaled 4.9 million pounds.

Output of cyclic rubber-processing chemicals in 1960 amounted to 171 million pounds, compared with 178 million pounds in 1959. Sales totaled 130 million pounds, valued at $85 million, compared with 134 million pounds, valued at $86 million in 1959. (Cyclic rubber-processing chemicals are chiefly accelerators and antioxidants.)

Production of amino and hydroxy antioxidants, which amounted to 76 million pounds in 1960, included 60 million pounds of hydroxy compounds.

Production of acyclic rubber-processing chemicals—chiefly accelerators and peptizers—amounted to 29 million pounds in 1960, compared with 32 million pounds in 1959. Sales in 1960 amounted to 23 million pounds, valued at $16 million, compared with 25 million pounds, valued at $16 million, in 1959.

The statistics on production and sales of rubber-processing chemicals in the commission's preliminary report are more than 95 percent complete. Final statistics will be given in a report on production and sales of synthetic organic chemicals in 1960, to be issued later this year.

Citric Market Growth

—Continued from page 5

sis of extensive tests, bond and finish characteristics of the one-coat enameling are reported to equal or surpass the quality obtained from standard double-coat application.

Now in use commercially, the process has undergone extensive testing. In-plant work during the past two years has ranged from small fabricated parts to twelve-foot interior baffles and shelves of commercial refrigerators and freezers.

Pfizer says that aside from its ability to etch steel for direct-on enameling, the "Citrobond" process is easily adapted to existing plant facilities and no major equipment installations are necessary.

If a manufacturer wishes to use two processes, pickling with sulfuric acid and with citric acid can be acomplished in separate tanks. Other production phases such as alkaline cleaning and rinsing use the same baths for both processes.

According to the inventors, Shipp C. Davis of Daco Corporation, Chattanooga, Tenn., and William G. Ray of Pfizer, the color enameling of home appliances now in vogue can also be done using this direct-on process.

IMPORTED & DOMESTIC
CASEIN
- Lactic and Hydrochloric acid type.
- We can "tailor-make" a casein to fit your needs.
- Special price consideration given to small users.
- We believe we can save you money, with our very reasonable prices.

Write us today for additional information

THE ERIE CASEIN DRYERS
100 MAIN ST. ERIE, ILLINOIS

OPD REPRINTS
50¢ A COPY

Iron Oxides
DOP and DIOP

OIL, PAINT AND DRUG REPORTER
Reprint Department
30 Church Street, New York 7, N. Y.

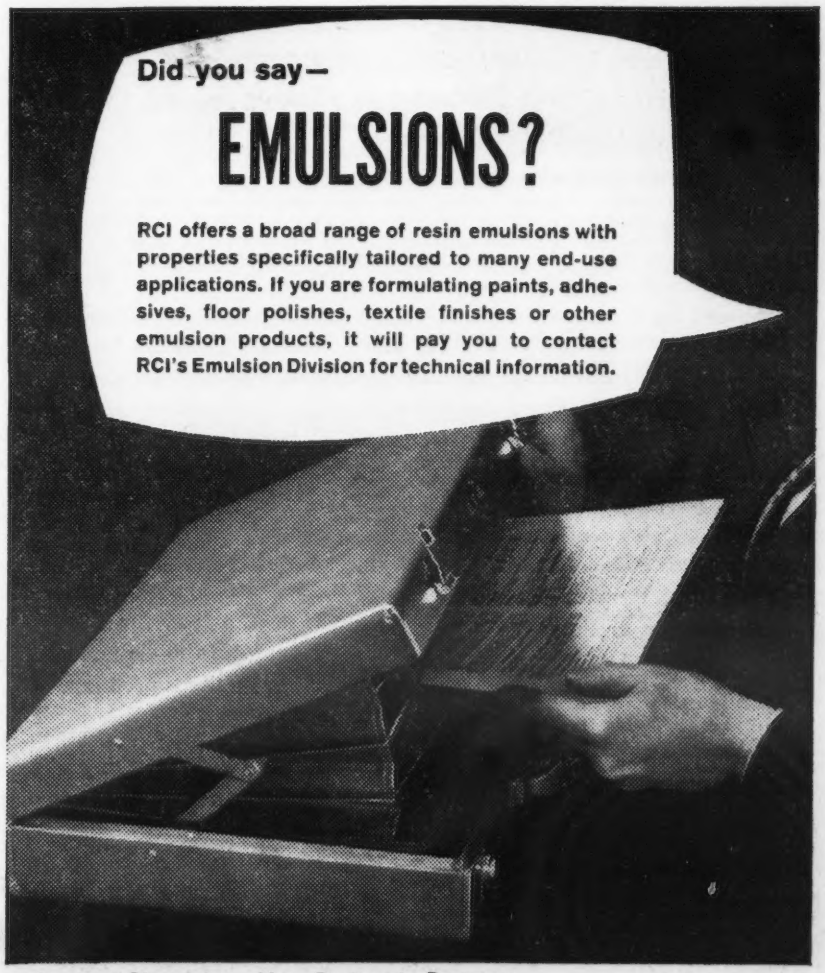
ULTRAMARINE BLUES
- Prompt deliveries through nation-wide warehouses
- Complete range of types
- Experienced technical service

The Big Name in Quality Ultramarine Blues (formerly sold by American Cyanamid Company)

UNITED ULTRAMARINE & CHEMICAL COMPANY, INC.
149 Broadway, New York 6, N.Y.

SYNPRO STEARATES
- ZINC STEARATE USP, COSMETIC, TECH.
- ALUMINUM STEARATE (All Types)
- CALCIUM STEARATE
- BARIUM STEARATE
- MAGNESIUM STEARATE USP, TGA Specs.
- CADMIUM STEARATE and others

30,000 lb. lots available for single shipments . . Also producers of aurates, palmitates, and others
SYNPRON stabilizers for Vinyl Compounds
SYNTHETIC PRODUCTS COMPANY
Since 1917
1636 Wayside Road, Cleveland 12, Ohio • Phone: KE 1-6010


Did you say—
EMULSIONS?
RCI offers a broad range of resin emulsions with properties specifically tailored to many end-use applications. If you are formulating paints, adhesives, floor polishes, textile finishes or other emulsion products, it will pay you to contact RCI's Emulsion Division for technical information.

Creative Chemistry...Your Partner in Progress
RCI REICHHOLD
REICHHOLD CHEMICALS, INC., RCI BUILDING, WHITE PLAINS, N. Y.

ONLY MINUTE MAID® OFFERS 100% PURE CITRUS ESSENTIAL OILS FROM FLORIDA AND CALIFORNIA!

SUN-FILLED®

BRAND

Florida and California All-Valencia Orange Oils, Cold Pressed, U.S.P.
California Lemon Oil, Cold Pressed, U.S.P.
Florida and California Grapefruit Oils, Cold Pressed
Florida Lime Oil, Cold Pressed
Florida Tangerine Oil, Cold Pressed

With extensive groves in Florida and California, Minute Maid is the *only* producer which gives you a choice of citrus essential oils from both of these great citrus-producing states. For example, Minute Maid offers *two* SUN-FILLED All-Valencia Orange Oils, Florida or California... both Cold Pressed, U.S.P., with true, rich Valencia Orange flavor, aroma and color.

All SUN-FILLED citrus essential oils are guaranteed 100% pure. You can use them with complete assurance because they're produced and packed under continuous U.S.D.A. inspection... completely protected against adulteration and sophistication by tamper-proof seals.

What's more, with SUN-FILLED citrus essential oils you're assured of highest quality. Minute Maid's strict quality control assures constant uniformity, batch after batch. When you buy SUN-FILLED you buy the very best! And you're always sure of ample, dependable supply from Minute Maid—America's largest producer of citrus products.

SUN-FILLED citrus essential oils are shipped in 35-lb. tins and 385-lb. drums. Write us now for free samples!

Florida SUN-FILLED citrus oils are produced at 3 Minute Maid plants — Plymouth (shown above), Auburndale and Leesburg, Florida.

California SUN-FILLED citrus oils are produced at Minute Maid's Golden Citrus plant at Anaheim, California.

BOTTLERS AND BEVERAGE BASE MANUFACTURERS

Send for our free 4-color brochure on SUN-FILLED citrus essential oils and beverage concentrates. They're unmatched for adding true citrus fruit flavor, aroma and color to soft drinks!

CITRUS PRODUCTS DIVISION

MINUTE MAID CORPORATION
Orlando, Florida
New York, N.Y.: 420 Lexington Avenue • OREgon 9-8755

Essential Oils, Aromatics

No specific price changes occurred during the week in essential oils or aromatic chemicals. Cinnamon bark is reported to be quite strong as are the various bay oils. Spearmint, peppermint, and geranium are said to be easy and the vanilla bean market steady and unchanged. This stability in the vanilla market is said to be due to the Malagasy government's strict control over material exported. This stability is expected to continue through the summer. The Mexican market generally follows right along with the Bourbon market.

While the revolt in Cuba may be of some little concern to certain segments of American industry, it is no great worry to essential oil businessmen. It has been pointed out that production of lime oil in Cuba has been interrupted but that this represents such a small percentage of total US importation of the oil that the effect is slight.

Some 90 percent of the lime oil used in this country is produced in Mexico.

Cigar smoke has been analyzed by the US Department of Agriculture, US Eastern Utilization Research Laboratories. Cigars were smoked on a specially designed apparatus and the smoke collected by low-temperature condensation.

A neutral fraction of the condensate was studied with regard to the carbonyl constituents, and by a combination of chemical, chromatographic and physical techniques, five carbonyl compounds were identified.

A hydrocarbon and an organosilicon compound were found in addition to the above mentioned constituents.

The following information about the soap industries in Burma and Iran is from Chemical and Rubber, a publication of the US Department of Commerce, Business and Defense Services Administration in Washington.

Among several important new Burmese plants that began production recently was a soap factory owned jointly by a leading foreign soaper and the Burmese Government. The facility reportedly will be outside Rangoon and will have an initial annual production of 5,000 tons. Consumption was estimated at 18,000 tons in 1958.

Soap will be produced as a byproduct of an almost completed vegetable oil extraction and shortening manufacturing plant in Isfahan. The facility is privately owned by a local family.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 22, 1960
143.98	143.98	144.11	146.72

For Current Prices See Page 11

Essential Oils

Bay — Limited quantities of Puerto Rican material — both the 50-55 percent and the 55-60 percent—are available for $4 per pound.

West Indian 50-55 percent material is available at $4.25 per pound.

Cinnamon Bark — The market is quite firm with prices of $74.40 being quoted.

Citronella — Material from Formosa is said to be strong.

Costus—The prices continue at $6 per ounce with trading activity reported moderate.

India is the chief producer of the world's output—estimated at some 10 tons annually. Some oil is produced from Indian roots in Grasse and, on occasion, in the US.

Costus is known in India as Kut, Kashmirja and Kushta. It has the reputation there for its medicinal value. The roots are often shipped to China and Japan for burning as incense.

In India, direct steam distillation of the roots as well as vacuum distillation of the resinoid, are employed.

Geranium—Shipping prices of Bourbon material are reported to be soft.

No spot price change has been noted.

Lemongrass — From source comes the word that the price of the new crop material is firm.

As previously reported, this is due to two factors:

- Lack of rain in February and March.
- Comparatively small carry-over.

Spot prices, however, remain unchanged.

Peppermint — The market continues weak.

Spearmint—This market continues weak.

Sage—Material is reported to be moving in good volume. Spot prices remain at their previously quoted levels: clary continues to range between $12 and $15 per pound; Dalmation continues to range between $2.85 and $4 per pound, and Spanish continues to range between $1.25 and $1.60 per pound.

From published sources, we learn that clary sage is native to the Mediterranean countries. It grows wild in the southern part of France, in North Africa, parts of Italy and on the Crimean peninsula of the Soviet Union.

Large quantities of the oil are distilled in Crimea and Kaukasia—in the neighborhood of 100 metric tons per year.

The essential oil is contained in the green parts of the plant, expecially in the flowering tops which contain an odor that is called wine-like and reminiscent of ambergris.

Clary sage grows best in a dry calcareous soil at a high altitude with a good deal of sunshine and a few soaking showers in the springtime.

The oil, when used in perfumery, blends well with oils of lavender, bergamot, jasmin, coriander, cardamon, sandalwood, and geranium.

Seeds and Spices

Basil—California coarse material continues to drop in price. Three weeks ago the quotation was $1.20 per pound, two weeks ago it was $1.18 per pound and last week, it was $1.12 per pound.

Canaryseed—Moroccan material dropped from $10.50 per pound to $10.25 per pound.

Ginger—Cochin material dropped from 18½ cents per pound to 17½ cents per pound.

Pepper — The peppers behaved rather erratically last week. Malabar black advanced from 46 cents per pound to 49

Pepper: 1960 Imports of Black and White†

	Indonesia	Federation of Malaya Singapore Sarawak	India	*Brazil *Ceylon Miscellaneous	White	Monthly Total
Jan.	789,904	48,700	1,658,913	26,455	940,712	3,464,684
Feb.	1,239,405	44,860	6,116,200	772,780	305,045	8,478,230
Mar.	246,850	.....	3,330,684	292,312	454,206	4,324,052
Apr.	578,400	22,400	4,391,180	897,881	564,438	6,454,299
May	291,200	.....	1,871,120	202,143	187,569	2,552,032
June	1,511,440	19,200	567,580	89,660	158,363	2,346,183
July	751,371	8,560	593,540	35,700	43,320	1,432,491
Aug.	1,736,280	147,000	210,000	33,424	100,800	2,227,504
Sept.	1,560,300	16,400	324,800	103,897	22,223	2,027,620
Oct.	1,041,938	67,230	291,200	56,046	28,000	1,484,414
Nov.	1,159,200	31,814	459,200	.....	117,600	1,767,814
Dec.	1,738,100	271,420	1,321,037	.....	244,926	3,575,483
Total ..	12,644,388	677,524	21,135,454	2,510,238*	3,167,202	40,134,806
Long Tons	5,645	303	9,435	1,121	1,414	17,917

Source: Trade Estimates.
* Ceylon 1,301,940; Brazil 1,191.30.
† In terms of pounds.

HEADQUARTERS for
CAMPHOR U.S.P.
Synthetic

When you think of Camphor contact MM&R. The MM&R brand has these important advantages:

- Meets all U.S.P. Specifications
- Finest Quality, under the Label, Seal and Guarantee of MM&R
- Pure White
- Packed in 100 lb. strong, fiber drums
- Attractively priced. Phone, write or wire us for current quotations
- Immediate shipment
- Dependable source of supply at all times.

MAGNUS, MABEE & REYNARD, INC.
The World's Most Famous Suppliers of Essential Oils, Basic Perfume Oils, and Concentrated Flavors
16 DESBROSSES STREET • NEW YORK 13, N. Y.
221 NORTH LASALLE STREET • CHICAGO 1, ILL.

GUMS
ARABIC
KARAYA
TRAGACANTH
LOCUST
PENICK
BOTANICAL AND ALLIED PRODUCTS DIVISION
S. B. PENICK & COMPANY
100 CHURCH ST., NEW YORK 8
735 W. DIVISION ST., CHICAGO 10

ESSENTIAL OILS • PERFUME OILS • FLAVORS • AROMATIC CHEMICALS and ODOR MASKS
Proven Replacements For: BERGAMOT OIL, CITRONELLA OIL, ANISE OIL, CASSIA OIL
DOMESTIC EXPORT — YOUR INQUIRIES SOLICITED
D. W. HUTCHINSON & CO., INC., 700 South Columbus Ave., Mount Vernon, N. Y.
Founded 1896 — Telephone: Mount Vernon 4-7272

FLAVORS PFW SCENTS
POLAK'S FRUTAL WORKS INC., MIDDLETOWN, N. Y.

NOW Offering Our Own Production of
DIHYDRO ISOJASMONE
This beautiful, high-purity aromatic, now in quality-controlled production at our Clifton Plant, is recommended for use in jasmine type fragrances and variety bouquets to impart that elusive touch of originality so sought after in fine perfumes. Makes for economy in its low concentration requirements.
Write or phone us for a FREE test sample.
FRITZSCHE BROTHERS, Inc.
76 NINTH AVENUE NEW YORK 11, N. Y.
Branch Offices and *Stocks: Atlanta, Ga., Boston, Mass., *Chicago, Ill., Cincinnati, Ohio, Greensboro, N. C., *Los Angeles, Cal., Philadelphia, Pa., San Francisco, Cal., St. Louis, Mo., Montreal and *Toronto, Canada; *Mexico, D. F. and *Buenos Aires, Argentina. Plants: Clifton, N. J. and Buenos Aires, Argentina.

UNUS PRO MULTIS

EXCLUSIVE
BASIC MATERIALS FOR:
Perfumes, Cosmetics,
Colognes, Soaps,
Pharmaceuticals,
Paints, Insecticides-

Norda®

Norda Makes Good Scents

WRITE ON YOUR LETTERHEAD FOR FREE SAMPLES:
Norda, 601 W. 26th St., New York 1, N. Y.
Chicago • Los Angeles • San Francisco
Toronto • Montreal • London • Paris
Grasse • Mexico City

Cable Address—"NORDOIL" New York • Telephone—WAtkins 4-7878

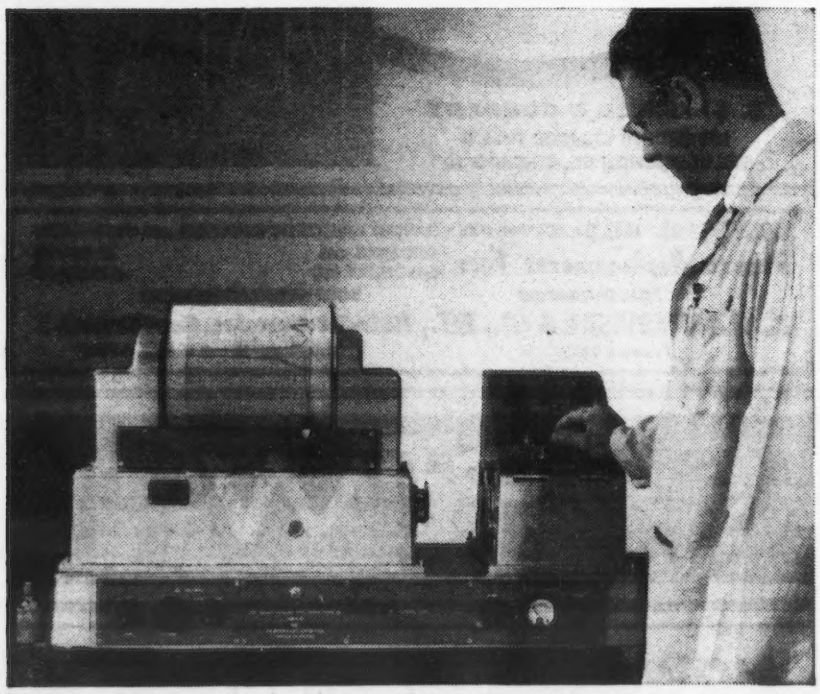
Pioneer Brand Oil
of Peppermint U.S.P.

ESSENTIAL OILS
PERFUME BASES
AROMATIC CHEMICALS
FLAVORS &
FLAVOR MATERIALS

FELTON CHEMICAL COMPANY, INC.
599 JOHNSON AVENUE, BROOKLYN 37, N.Y.

FELTON

Write for Samples



For aromatic chemicals of highest
chemical and olfactory purity SPECIFY GIVAUDAN

Givaudan—the world's largest manufacturer of aromatic chemicals—has long specialized in the development and product application of synthetic aromatics. Their outstanding purity . . . exceptional stability . . . consistency of odor . . . result from Givaudan's careful step-by-step control during every phase of development and production. Specify Givaudan aromatics. They set the world's standards for highest quality aromatic materials.

GIVAUDAN

GIVAUDAN-DELAWANNA, INC.
321 West 44th St., New York 36, N.Y.

Essential Oils

and Lampong black advanced from 46 cents per pound to 46½ cents per pound.

Muntok white, however, dropped from 55 cents per pound to 54 cents per pound.

Vanilla Beans—Dealers report no substantial changes in Bourbon or Mexican vanilla beans.

The price stability is attributed to the fact that for over a month the Malagasy government has exercised rigid control over the exports.

News sources report that this stable price situation could exist through the summer.

The ranges continue thus: Bourbon material, $6.95 to $7.25 per pound; Mexican cut material, $7.10 to $7.40 per pound, and Mexican whole material, $7.50 per pound.

Imports Detained at N.Y.

Week Ended April 7, 1961

Black pepper, 15 lots, 2,040 bags.
Caraway seed, 150 bags.
Cassia, 12 lots, 1,136 bales.
Celery seed, 5 lots, 933 bags.
Chillies, 320 bags.
Coriander seed, 200 bags.
Dill seed, 3 lots, 356 bags.
Ginger, 10 lots, 1,394 bags.
Mase, 11 lots, 187 cases.
Nutmegs, 3 lots, 445 bags.
Sesame seed, 2 lots, 800 cartons.

Aromatic Solvents

Methyl Salicylate—The half cent per pound price decline that was reported in the previous issue has been retracted by the company that reported that change. So, for all practical purposes, methyl salicylate is unchanged at 62½ cents per pound.

Perchloroethylene Cleaner

—Continued from page 5

perchloroethylene to clean clothes faster, use less solvent and provide safer working conditions, without substantially increasing the cost over present equipment."

Clete M. Smith, a solvents engineer in the chemical division, has this to say about the development:

"The application of vacuum drying technics with direct contact cooling or absorption of the resulting vapors with a rapidly rotating body of cold liquid or mist, for example in certain vacuum pumps, will enable drastic reduction in drying times."

Mr. Smith emphasizes that operation cycles can conceivably be reduced to one-quarter the time required for present equipment. The same technic can be applied to solvent degreasing.

The company's concept can be applied to the design of both coin-op and professional cleaning equipment. The direct contact cooling or absorption can be used effectively to increase the solvent recovery and eliminate the need for condensing coils and carbon adsorption equipment.

Dow Picks Foster Wheeler

—Continued from page 4

coloring facilities, quality control laboratories and technical service facilities.

Operated by Dow Chimica Italiana SpA, a wholly-owned Dow subsidiary, the facility will manufacture a wide range of

Raymond Duddleston is project manager for the new unit with responsibility "Styron formulations." "Styron" is the Dow trademark for polystyrene.

Completion of the initial production capacity is scheduled for mid-1962. Total capacity will reach 16,000 tons per year.

GSA Asking Industry Bids To Upgrade US Molybdenite

General Services Administration plans to upgrade more of the molybdenite in the national stockpile of strategic and critical materials.

Under the present upgrading, GSA requires that the molybdic oxide resulting contain 2.6 million pounds of molybdenum; and the ferromolybdenum, 1.4 million pounds of the same element.

Proposals will be received by GSA's Defense Materials Service, Room 6018, 18th and F. Streets, NW, Washington (25) D.C., until 3 p.m., May 15. Further information on the conversion is available from the DMS project administration director at the same address.

McKesson & Robbins Forms

—Continued from page 7

and labeling arrangements have been completed.

Frank L. Capers, formerly vice-president of McKesson, has been named president of Norcliff. James W. Thomas is general sales manager, and Leon A. Danco is senior product director.

Offices of Norcliff will be located in Fairfield, Conn.

MUSTARD FLOUR

ALL GRADES
FOR FOOD, AND
MEDICINAL USE

Special for Mayonnaise

Old Dutch Mustard Co., Inc.
Manufacturers
80 Metropolitan Ave., Brooklyn 11, N. Y.
Phone: EVergreen 7-9156

AROMATICS
BY VERONA®
for RELIABILITY
QUALITY and
SERVICE
VERONA AROMATICS
26 VERONA AVENUE • NEWARK 4, NEW JERSEY

Fairmount
CHEMICAL CO. INC.
136 Liberty St., N.Y. • Plant: Newark, N.J.

ACETOIN
FOR BUTTER FLAVOR

Bidsawya

AROMATIC CHEMICALS
ESSENTIAL OILS
FLAVORS

MUSK T
(ETHYLENE BRASSYLATE)
ABIES OIL

BIDDLE SAWYER CORP.
20 VESEY STREET, NEW YORK 7, N. Y. WOrth 4-4084

BRILL FOR VALUES

CENTRIFUGES

2—Sharples C-20 and C-27 Super-D-Hydrator, 316 S.S.
1—Bird 18"x28", Solid Bowl, Continuous, 304 S.S.
2—Bird 24" x 38" Solid Bowl Continuous 304 SS.
1—Bird 36" x 50" solid bowl continuous, 347 SS.
1—Bird 40" x 60" solid bowl continuous, 316 SS, UNUSED.
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
2—Fletcher 48" Suspended 316 S.S. Perforated Basket.
2—Sharples #16, 304 S.S., 3 HP motor.

REACTORS — EVAPS — CONDS — TANKS

1—100 gal. 304 S.S. jacketed agitated Reactor.
3—Pfaudler 200 gal. glass lined jacketed Kettles.
1—300 gal. Hastelloy B jacketed kettle.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—500 gal. S.S. Mixing Tank with nickel coils.
1—2,000 gal. horizontal 304 S.S. tank 5' x 12'.
1—10,000 gal. rubber lined Tank, 10' x 17'6".
1—2,500 gal. vertical 304 SS Tank, 8' x 7'.
6—7500, 6000 and 2000 gal. Rubber Lined Tanks.
1—12,000 gal. horiz. steel Pressure Tank, 7'6"x36', 200 psi.
2—Glascote 26 sq. ft. glass lined jacketed Condensers, UNUSED.
4—Stainless Heat Exchangers; 536, 370, 315, 250 sq. ft.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.

FILTERS

1—#5 Sweetland Filter 304 S.S. 120 sq. ft.
1—Oliver 6' dia. Horizontal Filter, 316 S.S.
1—Oliver 5' x 6' Steel Rotary Vacuum Precoat Filter.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet Filter.
1—Hercules 400 sq. ft. 304 SS pressure Filter.
1—Oliver 5'3"x8' Steel Rotary Vacuum, vaportite housing.
1—Feinc 5'x6' Stainless Steel Rotary Vacuum Filter.
1—Feinc 3' x 3' Stainless Steel Rotary Vacuum Filter.
2—Feinc 3' x 1' and 3' x 3' Stainless Steel Rotating Vacuum Filters, string discharge.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.

DRYERS

1—Buflovak Vacuum Shelf with 17—60" x 80" shelves.
2—Buflovak 42"x120", atmospheric double drum Dryers, complete.
1—Buflovak 32" x 90" Atmos. Twin Drum Dryer.
2—Devine 4'x9', single drum, atmospheric.
1—Buflovak 3'x10' Rotary Vacuum Dryer.
1—Baker Perkins 5'6"x6' Rotary Vacuum Dryer.
6—Louisville Rotary Steam Tube 5'x25', 6'x30', 6'x50'.
2—Louisville 8'x50' Stainless Steel lined Rotary Dryers.
9—Rotary Dryers 34"x30', 4'x40', 6'x50', 6'x60', 7'x80', 8'x87'.
1—Louisville 4-1/2' x 25' Inconel Rotary Dryer.
2—Link Belt, 7'5"x25', 6'4"x24", S.S. Louvre Dryers.
1—Stokes Model 38-A Tray Dryer with 16—36" x 36" SS shelves.
2—Atmos. Tray Dryers, 16 shelves, 40"x24".
1—P&S 6' wide Apron Conveyor Dryer 48' long.
2—Wyssmont Dryers, 304 SS, 6'2" and 9'6" dia.

MIXERS

1—Abbe 110 gal. 304 SS Jacketed Agitated Vacuum Dispersal Mixer.
2—Day Imperial 150 gal. jktd. double arm.
2—Baker Perkins 150 and 100 gal. jacketed double arm sigma blades.
1—Baker Perkins 50 gal. jacketed, double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—Patterson 6' dia. Conical Blender 15 HP.
1—3' dia. Simpson Intensive Mixer.
1—2' dia. Simpson Intensive Mixer, 304 SS.
1—45" dia. Lancaster Mixer, 7-1/2 HP motor.
1—Patterson Kelly 150 cu. ft. Twin Shell Blender.
1—Sprout Waldron 1500# 304 SS Powder Mixer, 15 HP motor.

MISCELLANEOUS

3—Kinney Vacuum Pumps, 1000 cfm, 10 micron, 15 HP.
2—Hardinge 5' x 22" steel lined conical Ball Mills.
4—Mikro Pulverizers, #4TH, 1SH, 1SI and Bantam.
3—Abbe 2½' x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10" vert Mill, 10 HP.
1—No. 1 Ball & Jewell Rotary Cutter.
1—#18 Cumberland Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
2—#842 Rotex Sifters 60" x 84" double deck.
1—#24 Rotex Sifter, 20" x 64", Quadruple deck.

Partial List of Values — Send for Complete Circular

TEXAS OFFICE: 4101 San Jacinto Street, Houston 4, Texas — Tel.: JAckson 6-1351

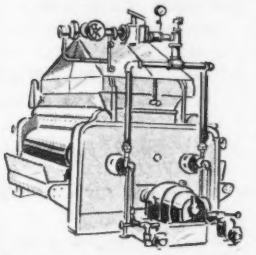
BRILL EQUIPMENT COMPANY
35-61 JABEZ ST., NEWARK 5, N.J. Tel.: MArket 3-7420

DON'T SHUT YOUR EYES TO THE ADVANTAGES OF GUARANTEED REBUILT EQUIPMENT

SPOTLIGHT SPECIALS

3 Buflovak Thermo Recompression Stainless Sanitary Evaporators
Western 36" Centr. in 316 SS.
Raymond Hi-Side Mill 5057; 60 HP
Royle No. 1 Jacketed Extruder
Day Mogul 150 gal. Mixer
Oliver Dorrco Rotary Vac. Filter 6'x3' with NICKEL contacts
Colton Stainless Oscillating Granulator
International 8' x 8' Porcelain Lined Pebble Mill with 50 HP Gear-Motor
2000 Gal. Stainless Steel Rectangular Tank 102"x72"x62". Type 316 S.S.

SAVE $8000 on this BUFLOVAK DRYER



Buflovak Type F-3-C DOUBLE DRUM DRYER 42"x100" ASME 100#W.P. complete with Stainless Hood and all accessories.

MIXERS ALL TYPES

Baker Perkins Jktd. 5 gal. UNE-7, Dbl. Arm Mixer with pressure cover; 30 HP.
Readco Jktd. 15 gal. Dbl. Arm Sigma Blade Mixer.
BLAW-KNOX 600 cu. ft. Conical Blender; 9'6" Dia.
Stainless Steel 150 gal. Jktd. Dbl. Arm Mixer with Vac. Cover; Hydr. Tilt.
Other Baker Perkins Jktd. Mixers, 150 gal., 200 and 300 gal.
J. H. Day Cincinnatus Dbl. Arm Mixer; 300 gal. STAINLESS Jacketed.
NOW IN STOCK for IMMEDIATE DELIVERY. ALL SIZES FALCON Ribbon Blenders in Steel or Stainless.

MILLS—PULVERIZERS

2 Stainless Steel Micronizers 30".
Abbe, Ball & Jewell Rotary Cutters; in a wide range of sizes, capacities.
Ball Mills and Pebble Mills by Abbe, Paterson, International, some Jacketed; up to 8' x 8'.
Mikro Pulverizers up to No. 4's.
Fitzpatrick Comminutators; Models D, K and C; motorized.
American Ring Roll Crusher; 50 HP.
Mikro S/S Atomizers; Nos. 6 and 5.
Raymond Imp Mills; many sizes.
Williams Hammer Mills to 60 HP.

EVAPORATORS—DRYERS

Buflovak S/Steel Thermo-Recompression Evaporator.
Link Belt Roto Louvre Dryer model 502-20.
Pittsburg Lectro Dryers, Bac 25 and BWC 3400.
Devine Vac. Chamber Dryers, Double Door Model No. 36.
Stainless Lab. Drum Dryer, 8"x11½".
Bowen S/S Lab. Spray Dryer.

COLLOID MILLS

Premier Stainless Model U3; 6" with 15 HP Motor.
Eppenbach QV8 with 5 HP motor.
Chemicolloid Stainless Homogenizer 15 HP; 3525 RPM.
Cherry Burrell Stainless Sanitary Homogenizer Size 1500; 25 HP.
Flowmaster Kombinators Model 200.

OLIVER PRECOAT FILTERS

3" x 2" Monel. 5'3" x 8' Stainless.
(2) 5'3" x 3" Steel or Rubber.
Feinc S/S Rot. Vac. Filter 3' x 1'.
Oliver Cont. Rot. Vacuum Filters.
Panel Type; 8' x 8' and 8' x 10'.

CONTINUOUS FINE GRINDING EQUIPMENT

To be Sold Direct from Location

2 Allis Chalmers 7' x 22' (2 Compartment) Compeb Mills, Meehanite Liners; 400 HP.
1 Allis Chalmers 9½ x 810 Preliminator or Continuous Ball Mill; Meehanite Liner magnetic-coupled to 400 HP Motor.
3 Allis Chalmers 7' x 22' Continuous Bill Tube Mills, Meehanite Liners, each driven by a magnetic coupled 400 HP Motor now operating in closed circuit with
3 Raymond 14 ft. Double Whizzer Mechanical Air Separators, each driven by 75 HP Motor. New in 1950.

CENTRIFUGES

Stainless Centrifugals from 30" to 60"; A.T.&M. Tolhurst, Fletcher, etc.
Tolhurst 40" Suspended Centrifuges; Rubber Covered Perf. Baskets and Curbs; Monel Plow-Discharge; 7½ HP.
2 Sharples Stainless Steel Model PN14 Super-D-Canters.
4311 S 1 Sharples C 27 Super-D-Hydrator in Type 316 Stainless with 40 HP motor.
5147 S 13-14 Two Bird Continuous Screen Type Horizontal Centrifuges; Monel & S.S.; 24" x 24".
2 Bird Rubber Covered, 48" with Plows; Fume Tight; 40 HP.

REACTORS—PRESSURE VESSELS

2 Stainless 400 gal. Reactors Jktd. Agtd. by Patterson and Struthers Wells.
6 Dorr-Oliver Stainless Steel Thickeners or Reaction Vessels; 550 gal. 5' x 5'.
Stainless Reactor, 2000 gal. Fully Jktd. Agitated.
Nickel Clad Reactor, 7'x11'6".
Mojonnier Stainless Vac. Pans; 3'x10' and 6' x 12'; others.
Lancaster Stainless Lined Rotary Reactor or Digester; 50" x 17'4"; Jacketed; good for 300 PSI Internal.
Pfaudler Gl. Lined Reactors; all sizes from 50 to 1000 gal.
Farrell-Birmingham Unused 2 Roll Mills 14" x 30"; late type; with Uni-Drives at a fraction of the new price.

FIRST MACHINERY CORP.
209-289 TENTH STREET, BROOKLYN 15, N. Y.

FMC Pays MORE For Your Surplus

PARKING ON THE PREMISES
Phone: STerling 8-4672
Cable Address: "EFFEMCY"

FMC

JUST PURCHASED

72—PFAUDLER 1400 GAL. BLUE G/L KETTLES, JKT. & AGIT., OPEN TOP.
18—PFAUDLER 1250 GAL. BLUE G/L REACTORS, CLOSED, JKT. & AGIT.
18—PFAUDLER 11,500 BLUE G/L HORIZ. TANKS, 20# WP NICKEL COILS.
72—PFAUDLER 250 GAL. BLUE G/L JKT. KETTLES.
60—1350 GAL. T347 SS TANKS, ASME 60# WP.
18—3650 GAL. VERT. STAINLESS STEEL TANKS.
9—13,300 GAL. VERT. STAINLESS STEEL TANKS.
20—27,500 GAL. HORIZ. STEEL TANKS, ASME 75# WP.
6—1450 SQ. FT. STAINLESS VERT. GAS EXCHANGERS.
3—WORTHINGTON 3500 CFM AIR COMPRESSORS, 24 x 15, 500 HP 4-CYLINDER GAS-ENGINE DRIVE.
150—WORTHINGTON 2" x 1½" WORTHITE PUMPS.
54—5200 GAL. HORIZ. STEEL TANKS, 55# WP.

DRYERS

2—Louisville 6' x 30' rotary steam-tube dryers.
5—F. J. Stokes #138J-16 vac. shelf dryers, 195 sq. ft., 16 shelves, 40" x 44".
5—BUFLOVAK 42" X 120" DRUM DRYERS, ASME 160#.
1—American 42" x 120" dbl. Drum dryer, ASME, stainless.
1—Buflovak 42" x 90" dbl. drum dryer.
1—AMERICAN 36" X 84" DBL. DRUM DRYER, ASME, VACUUM.
1—BUFLOVAK 5' X 12' SINGLE DRUM DRYER, VACUUM.
1—Buflovak 32" x 52" dbl. drum dryer, ASME 100# WP.
1—Buflovak 6" x 8" dbl. drum dryer, vacuum.
2—DAVENPORT 8' X 60' ROTARY DRYERS, 7/16" WELDED.
1—Louisville 4'6" x 25' rot. steam-tube dryer, welded.
1—Hardinge 4' x 30' rot. steam-tube dryer.
1—Bartlett 3' x 15' rotary dryer, everdur shell.
1—NERCO-NIRO PORTABLE STAINLESS SPRAY DRYER.

FILTERS — CENTRIFUGALS

3—Sweetland #12 pressure-leaf filters. (72) Leaves.
5—SHRIVER 48" CAST IRON FILTER PRESSES, 1250 SQ. FT.
6—VALLEY 36" ALUMINUM FILTER PRESSES, 1000 SQ. FT.
1—Niagara #510-28 T316SS pressure filter.
1—KLEIN 97 SQ. FT., T304SS FILTER.
1—Oliver 50 sq. ft. St. St. press.-leaf filter.
1—OLIVER 5'3" x 8' PRECOAT ROT. VACUUM FILTER—UNUSED.
2—Oliver 5'3" precoat T316 SS rot. vacuum filters.
10—DAVENPORT DEWATERING PRESSES; #1A, 2A, 3A.
25—SHARPLES #AS-16V SUPER CENTRIFUGALS, INCONEL, SLUDGE DISCH.
3—Sharples #C-20, C-27 Super-D-Hydrators, T316SS.
2—Sharples #16-P cent., T304SS, pressuretite.
3—BIRD 24" x 24", MONEL SLOTTED-BOWL.
1—Bird 24" x 38", Steel, cylindircal bowl.
1—Bird 32" x 50" cylindrical contin. cent., T316SS.
1—TOLHURST 48" SUSP. CENT., T304SS.
1—Bird 40" susp., steel Imperf. basket.
5—A.T.&M. 40" SUSP. CENT., T304SS.
2—A.T.&M. 32" Susp. Cent., T304SS.
1—A.T.&M. 12" Susp. Cent., T304SS.
2—DeLaval #BUH Stainless hermetic clarifiers.

MIXERS

50—BAKER-PERKINS #17, 200 GAL. SIGMA JKTD. MIXERS.
1—BAKER PERKINS #16-UUEM, 150 GAL. DISPERSION MIXER, 150 HP XP MOTOR, 125# JACKETED, VAULTED COVER.
1—BAKER PERKINS #15, 100 GAL. DISP. BLADES, JKT., T347SS.
1—BAKER-PERKINS #15-UUMM, 100 GAL. DISPERSION MIXER, 100 HP, ASME JACKET, CORED BLADES, COMPRESSION COVER, MOTORIZED TILT.
1—BAKER-PERKINS #15, 100 GAL. DISP. MIXER, T347SS, JKT.
1—J. H. Day #6 Cinc., 100 gal., sigma blades, Stainless.
2—Baker-Perkins #15, 100 gal., sigma jktd. mixer.
2—J. H. Day #5 Cinc., 75 gal., sigma blades.
1—J. H. Day #2 Cinc., 20 gal, jktd., sigma blades.
1—GEMCO 60 CU. FT. T304SS CONICAL BLENDER.

STAINLESS STEEL TANKS

1—5700 gal. horiz., T304 SS, 6'4" x 24', UNUSED.
1—3300 gal. vert., T304 SS, 6' x 14', dished heads.
1—3000 gal. vert., T304 SS, 6' x 15', coils, Vac.
2—2700 GAL. VERT., T304SS, 7'6" x 7'6", COILS, AGIT.
3—2600 GAL. VERT., T316 SS, 7' x 8', DISHED HEADS, COILS.
4—2100 GAL. VERT., T316 SS, 7' x 6'3", DISHED HEADS.
1—2100 gal. vert., T316 SS, 6' x 9'10", cone bottom.
12—1750 gal. vert., T304 SS hoppers, 235 cu. ft.
1—1600 gal horiz., T304 SS, 5' x 11', dished heads.
6—685 gal. vert., T316 SS, 3' x 13', coils.

WEEKLY FEATURE!
13—ABBE ENG. 6' x 8' PEBBLE MILLS, STONE LINED, 30 HP DRIVE.

PERRY EQUIPMENT CORP.
1407 N. SIXTH ST., PHILA. 22, PA.
Phone: POplar 3-3505

BUY with Confidence

OUTSTANDING MACHINERY-RIGHT NOW! WHEN YOU NEED IT!!

1—Baker-Perkins size 14-JUE 50 gallon jacketed double arm mixer, 50 HP.
1—J. H. Day 125 gallon gearless pony mixer.
1—14' all stainless steel bucket elevator.
1—40" rubber lined suspended centrifuge, X proof motors.
1—3000 gallon horizontal heresite lined storage tank.
2—Allis Chalmers low head gyratory sifters.
2—Copper coating pans, 38" and 30".
1—Blaw Knox 50 gallon agitated jacketed autoclave, 200# internal pressure.
2—100 gallon glass lined jacketed receivers.
1—54 cu. ft. all stainless steel spiral ribbon blender.
1—Colton model 241 high speed rotary tablet press.
1—Oliver 3'x2' stainless steel rotary vacuum filter.

Write or Phone Your Inquiries

chemical & process machinery corp.
52 Ninth St. Brooklyn 15, N.Y. HYacinth 9-7200

WIRE US COLLECT!

1—Allis Chalmers Stainless Lined 6' x 50' Rotary Dryer. ½" shell.
2—Sharples H 1½ Stainless Steel Nozzle Jectors. 7½ HP motors.
16—New Am. Heat Reclaiming Spiral Heat Exchangers, 55 & 120 sq. ft.
1—Raymond 5 roller Hi Side Mill. Model 5057. Raymond 6' dbl Whizzer Separator. Kemp Inert Gas unit.
1—Cedar Rapids 30 x 33 Slugger type Hammermill. With 150 HP motor.
1—Rubber Mill, 15¾" dia x 28" long Farrel Birmingham. 75 HP motor.
1—Strainer 8½" National Erie Gear red. and 125 HP motor.
1—Gayco 4' dia Whizzer Mechanical Air Separator. Model 38.

For immediate quote, wire or phone collect—GA 1-1380

ME MACHINERY AND EQUIPMENT COMPANY
123 Townsend St. - San Francisco 7, California

CHEMICAL PLANT SALE

NIAGARA FALLS, N.Y.

STAINLESS STEEL

B&P 300 gal. 18DIM Sigma Blade Mixer.
Dopp 1000; 1700 gal. Reactors jkt., agit.
435 sq. ft. Single Effect Evaporator.
Goslin Birm. 36"x24" Rotary Vac. Filter.
Sharples C27 Super-D-Hydrator.
3'x18" Crystallizer, jkt., agitated.
Swenson 24"x20' jacketed Crystallizers.
Brown Fintube Exchanger, 618 sq. ft.
Triplex 2¼"x4" Pumps 18 GPM @ 2000 PSI.
Centrifugal Pumps 1", 1½" & 2".

S.S. COLUMNS

78"x18' Bubblecap 14 tray, 50 PSI.
72"x30' Bubblecap 21 tray.
54"x30' Bubblecap 26 tray, 100 PSI.
48"x41' Bubblecap 40 tray, 100 PSI.
36"x20' Packed, 100 PSI.
30"x22' Packed, 75 PSI.
14"x18' Packed, 10 PSI.
12"x18' Packed, 100 PSI.

S.S. TANKS

4500 gal. 6'x25' dish/cone heads, 25 PSI.
4000 gal. 8'x12' dished heads, coiled.
4000 gal. 5'6"x24'6" dish/cone heads, coiled.
4000 gal. 7'6"x14' dished heads.
3500 gal. 8'x9' dished heads.
1500 gal. 6'x6'9" dished heads.
1250 gal. 5'x8' dished heads, agitated.
750 gal. 5'x5' plain and agitated.
500 gal. 4'x5' plain and agitated.
400 gal. 4'x4' plain and agitated.
300, 250, 150 & 100 gal.

MISCELLANEOUS

Pfaudler 500 gal. ELL glass lined Reactor.
Buflovak Vac. Drum Dryer, 6"x8" Drums.
Buflovak 6' Vacuum Crystallizers.
Nash Hytor Vacuum Pumps, #9, K5, #4.
Copper Tanks 3500 gal. to 200 gal.
Condensers in Stainless & Copper 2300 to 21 sq. ft.
Copper Bubblecap Columns 6' to 2' D.

Write for Detailed Catalogue

HEAT & POWER CO., INC.
60 E. 42nd St., N. Y. 17 MU 7-5280
Site Office, Pine Ave. & 47 St. BU 5-3644

DAY HY-R SPEED MILL HERSEY 5' x 26' ROTARY STAINLESS DRYER

CENTRIFUGALS—12" 30" 40" & 48". Amer. Tool 18' Stainless.
CENTRIFUGES—Sharples #5 & 6 S.S.
DRYERS—Hersey 5' x 26' Rotary Stainless Buffalo 32" x 90" Double Drum Dryer Buffalo Vac. Drum Dryer 24" x 20". Despatch Ovens Elec. Heated. 3—Devine & Stokes Vac. Shelf Dryers.
FILLERS—Powder & Liquid. Also Labelers.
FILTERS—#2 Sweetland 12 Stainless covered leaves. Hercules Filter 36". Erfel 6" & 10" Disc type.
FILTER PRESSES—6" to 36" Iron & Wood.
KETTLES—Stainless Jack. 20 to 500 gals. Dopp 350 gal. Cast Iron Jack. Vacuum. Devine Impreg. Units 30" & 36" dia. Steel Alum & Copper 5 to 2,000 gals.
MILLS—Raymond #00 Pulverizer 30 HP complete. Also #0000. Mikro Pulverizer #4, 2S1, 2TH, 1SH. Hammer Mills & Pulverizers 3 to 50 HP. Williams #3 & #2XX Hammer Mills. Taylor-Stiles 7½ HP Cutter. Rotary Cutters 1 HP & up. Sprt-Wald Stainless Spike Crusher. Pebble, Jar & Ball Mills, Lab to 6' x 8'. 3 Roll, 9" x 24", 12" x 30", 16" x 40". Lehmann 4 Roll W. C. 12" x 36" Steel.
MIXERS—Baker Perkins 100 gal. Jack. B. P. 15 HP—Masticator Mixer. Day Imperial 75 & 150 gal. Change Can Mixers 8, 15, 40, 80 gal. Day Jumbo 700 gal. horiz. Mixer. Sprout-Waldron 10,000# horiz. Spiral Mixer. Blystone 3000# horiz. spiral Mixer. Day 1000# horiz. Dry ribbon Mixer. Dry Spiral Mixers 50 to 10,000#. Lancaster 6' dia. 25 HP & #1, 3 HP.
PUMPS—Vacuum 10 to 500 CFM. Gould 75 HP Centrifugal 250 PSI.
SIFTERS—Day, Robinson Rotex type.
SOAP MACHINERY—Toilet, Laundry, etc.
TABLET MACHINES—Colton 4½ T. Stokes R single punch & RD1 rotary.
TANKS—Stainless, GL., Lined, Steel.
MISC. Boilers Gas & Oil. Conveyors.

Partial Listings — Write for Bulletins

STEIN EQUIP'T CO.
107 8th St., Brooklyn 15, New York
STerling 8-1944

EQUIPMENT
for CHEMICAL AND ALLIED INDUSTRIES

1—Baker Perkins, Size 16, Type UUEM, 150 gal. jacketed double arm, dispersion type mixer, complete with compression cover and 100 HP motor.

1—Niagara stainless steel filter, Model 510-28.

1—Oliver stainless steel rotary vacuum filter, 3' x 4'.

12—Sweetland #12 filters with 72 SS leaves.

1—Sturtevant #7 SS dustite rotary batch blender—NEW.

1—Banbury #1 mixer with 30 HP motor.

15—Robinson type 304 SS horizontal blenders, 255 cu. ft.

1—Robinson type 304 SS horizontal double ribbon blender, 125 cu. ft.

1—J. H. Day 5 gal. double arm sigma blade mixer, SS.

1—Stokes stainless steel granulating mixer, Model 21-J.

1—Stokes SS jacketed rotary vacuum dryer, 2' x 6'.

1—Pfaudler Series P, 30 gal. glass lined jacketed reactor, complete with agitator and drive.

1—Hersey stainless steel rotary dryer, 3' x 20'.

3—Buflovak stainless steel jacketed rotary vacuum dryers, 3' x 15' and 5' x 30'.

1—Buflovak 42" x 100" double drum dryer, complete.

1—American 42" x 120" double drum dryer, complete.

2—Pfaudler Series EM 300 gal. glass lined jacketed reactors.

2—Theo. Walters Hastelloy B 300 gal. jacketed reactors.

1—Pfaudler Series EL 750 gal. glass lined jacketed reactor.

2—Pfaudler Series R 5000 gal. glass lined jacketed reactors, complete with agitators and drives—NEW.

1—Alloy Fabricators 600 gal. steel jacketed autoclave with agitator and drive, 125 psi internal, 60 psi jacket.

1—Struthers Wells SS single effect evaporator 1150 sq. ft.

2—Process Equipment SS 10,000 gal. vertical storage tanks.

1—Sprout Waldron pelletizer, Type 501 FF.

1—Williams "Comet" 4 roll mill, complete, NEW.

1—Raymond 2 roll high side mill.

1—Vulcan stainless steel bubble cap column, 4' x 25 plates.

1—Badger type 316 SS bubble cap column, 36" dia. x 8 trays.

1—Griscom Russell SS heat exchanger, 900 sq. ft.

1—Downington SS heat exchanger, 750 sq. ft.

3—Badger SS heat Exchangers, 500 sq. ft. and 600 sq. ft.

20—Davis Engineering SS heat exchangers, 102, 119, 136, 166 sq. ft. NEW.

2—Davis Engineering, Carpenter 20, heat exchangers, 120 sq. ft.

R. GELB & SONS, INC.
UNION, NEW JERSEY Est. 1886 MUrdock 6-4900

1—Thropp 18x50" Rubber Mill, self contained with reducer, 125 h.p., motor, brake, etc.

1—Day 150 gal. Imperial Mixer, jack., with 75 h.p. vari-speed ex. proof motor; tilting type.

1—Day Size OA Twin Motion Gearless Pony Mixer, stainless steel, with ¾ h.p. 2 speed ex. proof motor. NEW—NEVER USED.

1—Sperry 36" STEAM JACKETED 4 eye cast Iron Filter Press, having 39 chambers, 2½" cake.

BILL WOLF, Inc.
2708 CAROL ROAD UNION, N. J.
MUrdock 6-8883

2—OLIVER PRESS PRECOAT FILTERS 5'3"—Type 316 S.S.

4—RIBBON BLENDERS, 2500 gal., 1200 gal.

2—AUTOCLAVES S.S., 50 gal. 2000 lb., 3½ gal., 2000 lb.

1—DRUM DRYER, Proctor & Schwartz.

4—COLLOID MILLS, 5 HP EX PR., 15 HP, 40 HP.

Machinecraft Corporation
800 Wilson Avenue, Newark 5, New Jersey
Mitchell 2-7634

FOR THE BEST IN USED EQUIPMENT

Conical Dry Mixer 192 cu. ft. vol.; 125 cu. ft. opr. vol., with 15 H.P. Unibrake Motor.
4—Werner & Pfleiderer 200 gal. jktd., sigma blade Shredders.
2—Ball & Jewell #2 Cutters.
4—Link-Belt Vibrating Screens 4' x 8'.
1—Jeffrey Vibrating Conveyor.
1—30" Sperry Filter closed del., 3-eye, 39-plates, 40-frames.
1—42" Sperry Filter 40-plates, 41-frames, hyd. closing, open del.
1—International Ball Mill, porcelain lined, 48" x 60", 15 H.P. Unibrake Motor, 2-drums balls. Like new.
1—Schutz-O'Neill Pulverizer 22", Style D.
1—Abbe Pebble Mill 5' x 22'.
1—Sparkler Filter 33-S-28, with Scavenger Plate, steam jacketed.
1—2 qt. Sigma Blade S.S. Mixer.
1—250 gal. S.S. Kettle, nickel jacket, 100#.
1—Patterson Steam Jkt. Ball Mill 42" x 36" dia.
2—Louisville Steam Tube Dryers 6' x 25'.
1—430 S.S. Tank 3000 gal. vert. ⅜ plate, with 2 pc. cover.
2—Vacuum Pumps, Gardner-Denver, 5" bore 4" stroke, with 7-½ H.P. motors.
1—#316 S.S. Reactor 265 gal. jkt.
2—Twin Screw Mixers 120 gal. jkt.
2—Aetna Water Stills 20 gph, new.

Large stock of new and used H.P. Boilers, Tanks, Pumps, Heat Exchangers, Freon Compressors, Stainless Steel & Brass Valves. Advise us as to your requirements.

H. LOEB & SON 4643 LANCASTER AVE., PHILADELPHIA 31, PA.

ECH SPECIALS

Readco SS J'ktd. 6 qt. Lab Mixer, vac. cover
Day 75 gal. sigma arm Mixer, 7½ HP motor
Oliver 316 SS Filter 6' dia., 25 sq. ft. cap.
Pfaudler 1500 gal. Glass Tank, closed top
Blaw Knox SS 100 gal. Autocl, agtd. 1000 psi
Cavagnaro sig. arm 200 gal. SS mixer, 75 hp
Simpson 24" Lab. Mix Muller with ¾ mtr.
Patterson SS 5 cu. ft. Twin Blender, 3 HP
Ribbon Blenders, SS & Steel, NEW & USED

WE BUY COMPLETE PLANTS OR SINGLE UNITS
Tel. SOuth 6-4451—4452—8782
YOU CAN BANK ON
Equipment Clearing House, Inc.
111 33 Street, Brooklyn 32, N.Y.

FOR IMPOSSIBLE BUDGETS

SS BASKET CENTRIFUGE

2—Tolhurst 48" perforated basket Centrifuges with 304 SS contact parts. 15 HP ex proof 800 RPM two speed motors. Plow and bottom dump.

Immediate Delivery From Stock

ME MACHINERY AND EQUIPMENT CO.
123 Townsend St. - San Francisco 7, Calif.

FILTER—NEW—Stainless, Niagara 48" vertical 512 sq. ft. w/stainless slurry tank.

GRANULATOR — NEW — Stainless Stokes oscillating w/motor.

VOTATOR—NEW—Stainless, lab. model 4 speed.

TABLET PRESSES—Stokes R, B2, DS 3, RD 4 all w/varidrives.

FEEDER/SCREENER — S/S Syntron 24" x72" tot. encl. w/rectifier.

MIXERS — Double arm, unused S/S 3 qt. Read—11 gal. Bramley—25 gal. Fishtail (10 HP)—110 gal. Day Imperial.

LAWLER COMPANY
LAWLER PLACE METUCHEN, N.J.
LIBERTY 9-0245

CHOICE EQUIPMENT

2—Sparkler 14" & 8" Stainless Steel Filters.
5—Hercules 16" & 8" Square Stainless Steel Filters.
1—Homo Mixer #1H—1 H.P. XP Motor.
2—Lightnin Agitators 7½ H.P. 1200 rpm.
1—Charlotte ND20—S.S. Colloid Mill XP Motor—600 gph.
2—Worthite S.S. Pumps—8" x 6"; 3" x 2".
1—Stainless Steel 30 gal. Autoclave 1000 psi w/Jacket & Agitator w/XP Motor.
1—Cyclotherm Package Boiler 250 psi, 600# hr.—20 H.P.
4—Stainless Vacuum Receivers 50 to 100 gals. 250 psi.
1—Horiz. Closed Spiral Mixer, 3' x 12', Jack.
1—Day Stainless Steel Blender 2000#.
1—Patterson 5' x 6' Jack. Ball Mill, 25 H.P.
1—N. J. Model 86 MX Pony Labeler.
1—Resina Automatic Screw Capper, Model Spec. 60 pm.—Yr. 1954.
5—Rotex Screens 20" x 38" to 40" x 84".
1—Kent High Speed 3 Roll Mill 13" x 43".
1—Devine Vac. Shelf Dryer, 10 shelves, 40" x 43".
1—Pfaudler 800 gal. G.L. Jack. Tank w/Ag.
2—Day 40 gallon Pony Mixers, M.D.
1—Roto Louvre Dryer—705-20—S.S.

Send Us Your Inquiries.
We Buy Your Surplus.

THE MACHINERY & EQUIPMENT CO.
91-93 New Jersey R.R. Ave., Newark 5, N. J.
Market 3-3103

Get it First.....

Get it All.....

Get it Straight.....

.....in OPD

EQUIPONOMICS

BIRD Continuous Centrifuges 18" x 28" 316 S.S. (1952) 15 H.P. Washing

OLIVER VACUUM FILTER—S.S 316. 3'x6'
COLUMN S.S. 4' D x 65' high, 55 plates.
TANKS S.S. 304, 2500 gal. 7' x 8' new.
KNEADER MASTER—Paterson 2½ gal.
CENTRIFUGE—Tolhurst 20" rubber lined.
COLLOID MILL—Premier UB5 S.S. 5 H.P.
LOUISVILLE ROTARY DRYER 1' x 8'—S.S.
CENTRIFUGE—ATM Susp. 48" 316 S.S.
ROLLER MILLS—Ross 14" x 32" Hi Speed Ross 4½" x 10".

PROCESS PLANTS SERVICE, INC.
287 Central Ave., Clark, N.J. Tel. FUlton 1-1183-4

Business Wants and Offers

RATES PER INSERTION—PAYABLE IN ADVANCE (Not Subject to Agency Commission)

ALL CLASSIFIED ADVERTISEMENTS—$8.00, thirty-six words or less; $1.50 for each additional six words or fraction.

NO DISPLAY—First two words printed in bold face type.

COPY DEADLINE—Wednesday Noon Preceding Date of Publication

Send replies to ads with box numbers to
OIL, PAINT AND DRUG REPORTER, 30 *Church St., New York 7, N. Y.*

BUSINESS OPPORTUNITIES

Are you interested in European common market? Old established West German chemical and pigment producer owns large industrial tract on Rhine looking for American manufacturer with funds to match theirs in joint venture. OPD 218.

EQUIPMENT OFFERED

For Sale: 1,500 gallon Glascote glass lined Reactor Kettle, 90 P.S.I. working pressure in jacket, 50 P.S.I. working pressure in shell, Vertical agitator and baffle. Excellent; Also 40" and 26" Tolhurst suspended perforated Centrifuges; 42" x 120" and 49" x 90" Double Drum Dryers. New Baker-Perkins S. S. T316 Ko-Kneader, model UP-200-RM, jacketed. Best Equipment Co., 1737 W. Howard St., Chicago 26, Illinois.

MATERIALS OFFERED

Manganese Carbonate Ore. Many thousand tons shipped. Produce sulphate, chloride, sulphonates etc., from waste acid or fumes. Successfully used for sulphate, electrolytic metal, agricultural supplement, welding etc. Mines at Box 33 West Cummington, Mass.

10,000 - 5 gal. Polyethylene containers w. 1¾" dia. top opening and glass stopper, 100/ctn. $35/100. Sample mailed postpaid $1; 20,000 lbs. Chromium Nitrate Crystal Reagent @ 20c./lb. 20,000 lbs. Activated Carbon for solvent vapor adsorption. Lesco Products Co., 5676 - 12th Street, Detroit 8, Mich.

Available at extraordinary low prices: 100,000 lbs. monthly Chlorinated Benzene (61% dichlorobenzene, 26% trichlorobenzene, 13% mixture of tetra, penta and chlorobenzene), 2¾c. f.o.b.; 208 cu. ft. Resin Duolite S-30; tonnage Cadmium Sulfate Pure; 100,000 lbs. 50% Disobutylene—50% High Boiling Alaphatic Hydrocarbons; 1,000-1,500 lbs. Virgin Pyruvic Acid (which probably needs to be redistilled); 10 drums Beta-Picoline (3 methyl) pyridine [illegible] water; 500 lbs. Guanidine Stearate; 7 x 20 kilos (original drum and one open drum) 40 kilos of Potassium Borohydride—85% (Metal Hydride); 250,000 lbs. Tricalcium Phosphate; 11,000 gallons used Aroclor 1248; 20,000 lbs. Grade T-24 Celkate; 100,000 lbs. Azo Benzol. Consultants protected. OPD 227.

PLANTS OFFERED

New building for chemical or paint plant for sale—20,000 sq. ft. on five acres of land or more. Heavy industrial area, rail and all utilities. 15 minutes from midtown New York City in New Jersey or will build to order and rent to AA-1 company. OPD 219.

For Sale: Five Acres Industrial Property in Sayreville, New Jersey, with two buildings totaling approximately 20,000 square feet. Railroad Siding. Suitable for chemical manufacturing. Phone BOwling Green-9-3570.

Paint Factory For Rent—Chicago. Full machinery, underground and inside storage tanks, Varnish Stacks. Produce large quantity Paint, Ink or Chemical at once. No capital investment. Interesting proposition to responsible tenant. Phone VI 2-1266. M. B. Hart, 3216-24 S. Shields Ave., Chicago 16.

POSITIONS OFFERED

Career opportunity for techn. chem. salesman for Chicago area and radius of 250 miles, with following in chem., cosmetic, paint, cleaning compound and allied industries. Quick financial growth possible f. right man w. ambition and initiative, by Eastern mfgr., known f. quality products and service. Send complete confidential resume with initial income requirements to MONA Industries, Inc., Paterson 17, New Jersey.

Southern Oxygen's Merger

—Continued from page 7

ed of shareholders shortly, but meeting dates have not been set.

Under the proposed consolidation, Southern will continue to operate under its present name as an Air Products division. Robert B. Swope, chairman of Southern, and Robert McMillan, president, will join the board of Air Products.

Air Products is now completing a $33 million expansion of its industrial gas production capacity.

ALUMINUM CONDENSER, 350 sq. ft.
4—24" FILTER PRESSES, S.S. fittings, wood frames.
LAPP FITTINGS, VALVES.
Continuous Stripping COLUMN 2x13.
ALUMINUM EVAPORATOR, Calandria type, 1300 sq. ft.
BLENDER—Double Cone, 70 cu. ft.
Ribbon Blenders, Hydraulic Pumps.

MACHINECRAFT CORP.
800 Wilson Avenue, Newark 5, New Jersey
Mitchell 2-7634

CHROMIC SULFATE SOLN.
350,000 lbs. AVAILABLE IMMEDIATELY
approx. analysis: 27% $Cr_2(SO_4)_3$
12% H_2SO_4
60% Water
1% Organic Fatty Acid

PYREX GLASS JARS
900—16" diam., 36" high, flat bottom

INQUIRE PURCHASING DEPARTMENT
Emery INDUSTRIES, INC.
4300 CAREW TOWER, CINCINNATI 2, OHIO
Phone: Dunbar 1-5700

"OUTSTANDING VALUES"
5—#12 SWEETLAND FILTERS
In Stock
72 leaves on 2" centers complete with hydraulic closing. Motor driven sluicing devices and special deep bottoms. Very excellent condition.
Priced Low For Quick Sale
Wire or phone collect—GA 1-1380
ME MACHINERY AND EQUIPMENT CO.
123 Townsend St. - San Francisco 7, Calif.

WANTED!
CHEMICALS—DYES
PHARMACEUTICALS
SOLVENTS—OILS
INTERMEDIATES
PLASTICIZERS—WAXES
PIGMENTS—COLORS
PACKAGED ITEMS
EQUIPMENT—PLANTS
BY-PRODUCTS

SELL NOW!
TURN INVENTORIES INTO CASH!

Chemical Service Corporation
EST. 1925
88 BEAVER ST., NEW YORK 5, N.Y.
Tel.: Hanover 2-6970
Cable address "RETORTS" N. Y.

— WANTED FOR CASH —
Off Spec. Job-Lot Discontinued } Glycols (Any Type) • Plasticizers • Vegetable—Animal Oils
SURPLUS Used or Spoiled } Solvents • Chemicals • Raw Materials & Finished Goods
Drum Lots to Tanker Lots . . . Any Quantity
Don't Throw Away Materials Which Are Seemingly Useless . . . See Us First ! !
HIGHEST SPOT CASH PRICES PAID
CHEMSOL, INC., • 74 Dod Street Elizabeth 3, New Jersey • FLanders 1-2020

we will buy your...
SURPLUS CHEMICALS
SOLVENTS • WAXES • OILS
RESINS • DRUGS • COLORS
WIRE OR PHONE FOR IMMEDIATE ACTION
All offers held in strictest confidence
Barclay CHEMICAL COMPANY, INC.
77 VARICK STREET NEW YORK 13, N.Y. WO 6-4533

Advertisers' Index

Allied Chemical Corporation—Plastics Division 42
Allied Chemical Corporation, Solvay Process Division 40
American Cyanamid Company, Process Chemicals Department 58
American Firstoline Corporation 37
American Lignite Products Co. 53
American Potash & Chemical Corporation 36
Amoco Chemicals Corporation 18
Arapahoe Chemicals, Inc. 44
Argueso, M., & Co., Inc. 55
Armour Industrial Chemical Company 53
Ashcraft-Wilkinson Co. 57

Baker, J. T., Chemical Co. 1, 21, 22, 23, 24
Barclay Chemical Company, Inc. 66
Becco Chemical Division, Food Machinery & Chemical Corp. 37, 41
Biddle Sawyer Corp. 62
Bios Laboratories, Inc. 50
Blackman, Stanley, Labs, Inc. 52
Blockson Chemical Company 37
Bower, Henry, Chemical Mfg. Co. 36
Brill Equipment Company 63
Brode Corporation, The 54
Bzura Chemical Company, Inc. 43

California Chemical Company, Oronite Division 25
Celanese Corporation of America, Chemical Division 20, 68
Chemical Manufacturing Co., Inc. 38
Chemical & Process Machinery Corp. 64
Chemical Service Corp. 66
Chemical Solvents Inc. 68
Chemsol, Inc. 66
Clintbrook Chemical Company 44
Commercial Solvents Corporation 1
Concord Chemical Company 68
Coupe, Robert A. 36
Cowles Chemical Company 31
Croda, Incorporated 54

Dickinson, J. Q., & Co. 50
Distillation Products Industries, Div. of Eastman Kodak Company 51
DuPont de Nemours, E. I., & Co., (Inc.) 45
Duval Sulphur & Potash Co. 57

Emery Industries, Inc. 55, 66
Equipment Clearing House, Inc. 65
Erie Casein Dryers 59

Fairmount Chemical Co., Inc. 62
Felton Chemical Company, Inc. 62
Fiber Chemical Corporation 68
First Machinery Corp. 63
Fisher Chemical Co., Inc. 68
Fluid Energy Processing & Equipment Co. 66
Fritzsche Brothers, Inc. 61

Gelb, R., & Sons, Inc. 65
Givaudan-Delawanna, Inc. 62
Gold Leaf Pharmacal Co., Inc. 50
Grace, W. R., & Co. 17
Greeff, R. W., & Co. 33
Gulf Oil Corporation 43

Harchem Division, Wallace & Tiernan, Inc. 53
Harshaw Chemical Co., The 52
Heat & Power Co., Inc. 64
Heico, Inc 37
Henry, J. F., Chemical Co., Inc. 33
Hoffmann-La Roche, Inc. 2, 49
Hooker Chemical Corporation 35
Hutchinson, D. W., & Co., Inc. 61

International Petrosolvents, Inc. 40

Jefferson Chemical Company, Inc. 19

Lawler Company 65
Lebanon Chemical Co. 57
Lever Brothers Company 40
Loeb, H., & Son 65
Lucidol Division, Wallace & Tiernan, Incorporated 41

Machinecraft Corp. 65, 66
Machinery & Equipment Company 64, 65, 66
Machinery & Equipment Co., The 65
Magnus, Mabee & Reynard, Inc. 61
Mallinckrodt Chemical Works 45, 46, 47, 48
Merck & Co., Inc. 39
Michigan Chemical Corporation 56
Minute Maid Corporation, Citrus Products Division 60
Mississippi Lime Company 37
Montrose Chemical Company 33
Morton Chemical Company 10

Nepera Chemical Co., Inc. 52
Neville Chemical Company 68
Norda Essential Oil & Chemical Company, Inc. 62

Old Dutch Mustard Co., Inc. 63

Pan American Sulphur Company 38
Penick, S. B., & Company 61
Pennsalt Chemicals Corporation, Industrial Division 1
Perry Equipment Corp. 64
Petro-Tex Chemical Corporation 8
Pfister Chemical Works, Inc. 43
Philipp Brothers Chemicals, Inc. 37
Pitt-Consol Chemical Co. 29
Pittsburgh Plate Glass Company, Chemical Division 35
Plastics Division, Allied Chemical Corporation 42
Polak's Frutal Works, Inc. (PFW) 61
Polyvinyl Chemicals, Inc. 58
Prior Chemical Corporation 1
Process Plants Service, Inc. 65
Procter & Gamble Co. 40
Publicker Industries, Inc. 13

Raney Catalyst Co. 41
Read, Chas. L., & Co., Inc. 58
Reichhold Chemicals, Inc. 59
Reilly Tar & Chemical Corporation 6
Republic Chemical Corporation 57
Riches-Nelson, Inc. 68
Richter, Gedeon Pharmaceutical Products, Inc. 50
Ross, F. H., & Co. 35

Sergeant, E. M., Pulp & Chemical Co., Inc. 36
Shamrock Chemical Corporation 53
Smith-Douglass Company, Inc. 38
Smith, Werner G., Inc. 55
Standard Collapsible Tube Co. 50
Stein Equipment Co. 64
Strohmeyer & Arpe Co. 54
Synthetic Products Company 59

Tennant Chemical Division, Tennant Development Corporation 41

Union Carbide Chemicals Company, Division of Union Carbide Corporation 1
U. S. Borax & Chemical Corporation 1
U. S. Steel Corp. 43
United Ultramarine & Chemical Company, Inc. 59

Ventura Processors 27
Verona Aromatics, A Division of Verona-Pharma Chemical Corp. 63

Wallerstein Company, Inc. 15
Welch, Holme & Clark Company, Inc. 54
Winthrop Laboratories 52
Wolf, Bill, Inc. 65
Wood Ridge Chemicals Corporation 53
Wyandotte Chemicals Corporation 36, 41

OPD's Advertising Staff

PRODUCTION: Claire Shannon
BUYERS DIRECTORY: Helen Lohse
NEW YORK (RE 2-9820)—Alexander Kane, Edwin F. Novy, Bronson Philhower.
CLEVELAND (LOng 1-5044)—Henry G. Seed, 17711 Lomond Boulevard, Cleveland 22, Ohio
MIAMI (FRanklin 9-2668)—John Printup & Associates, Langford Building, Miami 32, Fla.
DALLAS (DAvis 1-0898)—John Printup & Associates, 2607 Milmar Drive, Dallas 28, Tex.
LOS ANGELES (DUnkirk 7-4388)— Robert W. Walker Company, 730 South Western Avenue, Los Angeles 5, Calif.
SAN FRANCISCO (SUtter 1-5568) — Robert W. Walker Company, 57 Post Street, San Francisco

Bids Wanted

Calcium Hydroxide, tech., specification shall conform to requirements of the formula and description specified in the invitation, 24,000 lbs., delivery to NSC, Norfolk, Va. Bid IFB 63077-3272-61B, May 4. An additional quantity of 601,100 lbs. is being reserved for labor surplus areas under a partial determination. Military Industrial Supply Agency, 700 Robbins Ave., Philadelphia 11, Pa.

Herbicide, 2,4-dichiorophen oxyacetic acid low volatile esters, liquid, Spec. O-H-200A, Class 2, est. quantity 9,000 gals.; **Herbicide,** 2,4,5-trichlorophen oxyacetic acid low volatile esters, liquid, Spec. O-H-210A, dated Sept. 5, 1958, packed in 5 gallon metal drums, Type II, Class 2, est. quantity 4,500 gals. Bid IFB 61-161, April 26. The proposed procurement herein is for open-type contract for a period of one year commencing upon date of award. US Army Chemical Procurement District, New York, 290 Broadway, New York 7, N. Y.

Insecticides, Warfarin, powder, 4 percent, IAW Spec. O-R-507A, Class II, FSC 684-285-1822, 50 lbs.; **Lindane Dust,** Mil. Spec. MIL-I-11490A, FSC 6840-24-4219, 250 lbs.; **Chlordane Dust,** 10 percent, FSC 6840 NL 54812-5, 380 lbs.; **Malathion,** 50 percent, deodorized, oil base, FSC 6840-NL 54811-1, 2,000 gals.; **Insecticide Aerosol,** dichlorodifluoromethane solvent, dispenser, Spec. MIL-I-10745A, Type II, FSC 6840-NL 53512, 6,000 ea.; **Pyrethrum Dust,** 20 percent pyrethrum, IAW Spec. MIL-I-11355A, Type II, FSC 6840-NL 42519, 120 lbs.; **D-Con,** poison, mouse, .025 percent warfarin, 3-D automylbenzene, 4 hydroxycammorin, 99.75 percent inert ingredients as mafg. by D-Con Co. or equal, 330 lbs.; **Repellant,** snake, 35 lbs. Neutralizer, Mala Nr. 33 as manufactured by Magnus McBee and Reynard Inc. or equal, 160 lbs. Deliveries to Robins AFB, Ga. WRAMA Robins Air Force Base, Robins Air Material Area. ATTN.: Procurement and Production.

Sheilac, cut, Spec. Fed. TT-V-91B, Amend. I, Type I, Grade A body, 2,4404 gals. Bid IFB 63077-3216-61B, May 1. Military Industrial Supply Agency, 700 Robbins, Ave., Philadelphia 11, Pa.

Sodium Arsenite, 30 tons, estimated value of tender $8.000, bid deadline May 3. State Purchases Directorate B, Directorate General of Supplies, Ministry of Commerce, Athens, Greece, copies of invitation by contacting Chief Procureloan from the Trade Development Div., Bureau of Foreign Commerce, US Department of Commerce, Washington.

Sodium Hydroxide, Spec. Fed. O-S-598, Type I, 129.000 lbs. Bid IFB 63077-3304-61B, May 3. An additional quantity is being reserved for labor surplus areas under a partial determination. Military Industrial Supply Agency, 700 Robbins Ave., Philadelphia 11, Pa.

Sodium Nitrate, pelletized or flaked, approx. 240.000 lbs., packed in 100-lb. bags. Bid IFB SRO-61-14C, April 25. Potential bidders may obtain copies of invitation by contacting Chief Procurement. Atomic Energy Commission, Savannah River Operations Office, P. O. Box A, Aiken, S.C.

Water Softening Material, 15.000 kilograms. Bids are invited until May 6 by the Iranian Army Armaments Department (Edareh Taslihate Artesh, Khiabane Jaleh, Tehran, Iran) and must be accompanied by a deposit of $450 effected through the Bank of Melli, Tehran. The Trade Development of the US Department of Commerce has available on loan for review copies of the invitation.

CUSTOM GRINDING
JETOMIZING *to Micron and Sub-Micron Sizes*
- Uniform and controlled particle size.
- Abrasives, foods, insecticides, pharmaceuticals, pigments, resins, waxes and other chemicals.
- Pilot plant facilities for test grinding.

25 years' experience in jet milling field
FLUID ENERGY PROCESSING & EQUIPMENT CO.
Richmond & Norris Sts. • Phila. 25, Pa.
Jet-O-Mizer Mills & Jet-O-Clone Collectors

IMPORTS at United States Ports

New York

ALOE—100 cs, Southampton
ALUM—230 bgs, C M C Chemicals Inc, Liverpool
ALUMINUM OXIDE—4 dms, Reichhold Chemicals Inc, Rotterdam
ALUMINUM POWDER—20 dms, B F Drakenfeld & Co, Bremen
10 dms, Peacock Gold Leaf Co, Hamburg
ALUMINUM SULFATE—280 bgs, Bremen
AMMONIUM CARBONATE—20 dms, American Agricultural Chemical Co, Glasgow
300 cs, American British Chemical Supplies, Glasgow
AMYRIS OIL—6 dms, Lo Curto & Funk, Port Au Prince
7 dms, Olfactors Inc, Port Au Prince
7 dms, Olfactors Inc, Miragoane
ANILINE DYES—11 dms, Putnam Chemical Corp, Bremen
2 dms, General Aniline & Film Corp, Hamburg
29 dms, H Bruckmann & Lorbacher, Hamburg
126 dms, Geigy Chemical Corp, Bremerhaven
20 dms, Sandoz Inc, Havre
4 dms, Geigy Chemical Corp, Liverpool
65 dms, Geigy Chemical Corp, Havre
20 dms, Carbic Hoechst Corp, Rotterdam
5 dms, H Bruckmann & Lorbacher, Bremen
96 dms, Rotterdam
ANIMAL CHARCOAL—300 bgs, Riches Nelson, Rotterdam
ANTIMONY—4 cks, Watson Geach, Liverpool
ANTIMONY REGULUS—566 cs, Metachemical Corp, Rijeka
ARABIC GUM—247 bgs, Marine Midland Trust Co, Port Sudan
250 bgs, Morgan Guaranty Trust Co, Port Sudan
100 bgs, Manufacturers Trust Co, Port Sudan
255 bgs, J H Schroder, Port Sudan
150 bgs, Port Sudan
ARROWROOT—2,600 bgs, Morningstar Paisley Inc, St Vincent
ARSENIC, METALLIC—50 dms, Kolon Trading Co, Gothenburg
ASBESTOS FIBER—2,000 bgs, Johns Manville Corp, Durban
ASCORBIC ACID—100 dms, Gyma Lab, Genoa
BARBASCO ROOT—445 bls, Callao
BARIUM SULFATE—337 cs, Picker x-Ray Corp, London
BEESWAX—63 bgs, Anglo American Hides Co, Paranagua
25 bgs, Machado & Co, Ciudad Trujillo
88 bgs, Puerto Plata
184 blks, Lobito
21 bgs, Petit Goave
83 bgs, Paranagua
67 bgs, Porto Alegre
BLANC FIXE—1,200 bgs, C J Osborn Co, Rotterdam
BLANC FIXE PULP—32 dms, C J Osborn Co, Rotterdam
BONE CHARCOAL—260 bgs, M Baer & Co, Lisbon
BRONZE POWDER—5 dms, Nutran Products, Hamburg
10 dms, Peacock Gold Leaf Co, Hamburg
60 dms, Hamburg
BUTTONLAC—100 bgs, H C Smith, Calcutta
100 bgs, Calcutta
CADMIUM OXIDE—5 bbls, Antwerp
CALCIUM CARBONATE—940 bgs, Whittaker Clark & Daniels, London
600 bgs, Pluess Staufer, Antwerp
800 bgs, Hammill & Gillespie, Hull
2,400 bgs, N H Weitzner, Antwerp
50 dms, N H Weitzner, Antwerp
CARAWAY SEED—100 bgs, C M Van Sillevoldt, Rotterdam
200 bgs, Hoger Corp, Rotterdam
CARDAMOMS—20 cs, K H Landes & Co, Cochin
CARNAUBA WAX—350 bgs, S C Johnson & Son, Fortaleza
44 bgs, J W Hansen Co, Fortaleza
211 bgs, Cornelius Wax Refining Corp, Fortaleza
33 bgs, Smith & Nichols, Fortaleza
224 bgs, Frank B Ross, Fortaleza
439 bgs, Meadow Brook Bank, Parnahiba
188 bgs, Chase Manhattan Bank, Parnahiba
703 bgs, Bank of London & S A, Parnahiba
100 bgs, Peoples Trust Co, Parnahiba
125 bgs, Irving Trust Co, Parnahiba
100 bgs, Empire Trust Co, Parnahiba
88 bgs, Frank B Ross, Parnahiba
250 bgs, Cornelius Wax Refining Corp, Salvador
464 bgs, Parnahiba
55 bgs, Fortaleza
CASEIN—700 bgs, F C Gerlach, Buenos Aires
3,463 bgs, A J Mills & Co, Auckland
800 bgs, A J Mills & Co, Wellington
CASTOR OIL—50 tons, Brazilian Industrial Oils Inc, Fortaleza
150 tons, Pacific Vegetable Oil Corp, Fortaleza
CELERY SEED—87 bgs, Meer Corp, Bombay
CHAMOMILE FLOWERS—60 cs, S B Penick & Co, Rijeka
CHESTNUT EXTRACT—2,200 bgs, Barkey Importing Co, Genoa
CHICAGO ACID—20 dms, Kaufman & Vinson, Kobe
CHLORINATED RUBBER—300 bgs, C M C Chemicals Inc, Liverpool
CINNAMON LEAF OIL—1 dm, Volkart Bros, Galle
CITRONELLA OIL—3 dms, Volkart Bros, Galle
CLOVE BUD OIL—3 dms, Florasynth Lab, London
COBALT POWDER—8 cks, C Hardy Havre
COCA LEAVES—125 bls, Chase Manhattan Bank, Salaverry
COCONUT OIL—116 tons, Fallek Products Co, Rotterdam
COD OIL—25 tons, Dyson Shipping Co, Reykjavik
100 dms, Arista Oil Products Corp, Bergen
CODLIVER OIL—15 dms, Frank Samuel & Co, Reykjavik
150 dms, Arista Oil Products Corp, Bergen
CODLIVER MEAL—300 bgs, Dyson Shipping Co, Reykjavik
COPAL GUM—334 bgs, S Winterbourne & Co, Matadi
CORN STARCH—125 bgs, Impex Agricultural Corp, Rijeka
CORNMINT OIL—6 dms, Lo Curto & Funk, Santos
4 dms, Polarome Manufacturing Co, Santos
CREAM OF TARTAR—1,000 bgs, Leonhardt & Brush, London
CUMIN SEED—272 bgs, M J Golombeck, Khorramshahr
200 bgs, C M Van Sillevoldt, Khorramshahr
120 bgs, Am-Iran Corp, Khorramshahr
100 bgs, Curacao Trading Co, Khorramshahr
1,404 bgs, Khorramshahr
CUTTLEFISH BONE—90 cs, Takoradi
DEGRAS—52 dms, Malmstrom Chemical Corp, Dublin
78 dms, H A Gogarty, Nagoya
10 dms, Olympic Shipping Co, Liverpool
DEXTRIN—330 bgs, Morningstar Paisley Inc, Amsterdam
50 bgs, S S Stafford, Rotterdam
DI-ISOPROPYLXANTHOGEN DISULFIDE—1 kg, K & K Lab, Liverpool
DYES, COALTAR—17 dms, L & R Organic Products Co, Rotterdam
87 dms, H Bruckmann & Lorbacher, Hamburg
EARTH COLORS—724 bgs, Reichard Coulston, Larnaca
1,733 bgs, United Ultramarine & Chemical Co, Rotterdam
EPHEDRINE HYDROCHLORIDE—10 dms., Burroughs Wellcome & Co, London
FATTY ALCOHOL—100 tons, Onyx Oil & Chemical Co, Aarhus
FENNEL SEED—80 bgs, Bombay
FERRIC SULFATE—50 dms, Hudson Shipping Co, Liverpool
FISHLIVER OIL—5 dms, Arista Oil Products Corp, Yokohama
FUEL OIL—417,946 bbls, Shell Caribbean Petroleum Corp, Punta Cardon
101,949 bbls, Asiatic Petroleum Corp, Curacao
101,133 bbls, Royal Petroleum Corp, Punta Cardon
179,120 bbls, Humble Oil Co, Las Piedras
103,319 bbls, Humble Oil Co, Caripito
225,319 bbls, Humble Oil Co, Puerto La Cruz
329,563 bbls, Signal Oil & Gas Co, Aruba
104,424 bbls, Mobil Oil Co, Aruba
116,870 bbls, Hess Inc, Maracaibo
121,268 bbls, Hess Inc, Punta Cardon
FURFURAL—890 tons, E I Dupont De Nemours & Co, La Romana
GELATIN—73 dms, B Young, London
100 bgs, G G Lippelgoes, Liverpool
331 bgs, First National Boston, Hamburg
140 bgs, T M Duche & Sons, Antwerp
75 dms, H Bruckmann & Lorbacher, Rotterdam
GERANIUM OIL—7 bbls, A Verley & Co, Marseille
1 ck, Hollander Trading Corp, Marseille
15 cans, Polarome Manufacturing Co, Marseille
GERMANIUM OXIDE—40 cs, Antwerp
GLUE—1,200 bgs, Jung Forwarding Co, Liverpool
GLUE, FISH—25 bbls, S S Stafford, Bergen
50 dms, H Dixon & Son, Bergen
GLUESTOCK—357 bls, S Handusrger Co, Barranquilla
GRAPHITE—500 bgs, Asbury Graphite Mills, Bergen
GUAIACOL—10 dms, B L Lemke & Co, Bremen
GUAR GUM—200 bgs, T M Duche & Sons, Genoa
250 bgs, Wedeman & Godknecht, Genoa
GYPSUM—200 bgs, Whittaker Clark & Daniels, Liverpool
GYPSUM, CRUDE—10,173 tons, U S Gypsum Co, Hantsport
HENBANE—78 bgs, S B Penick & Co, Port Said
HEPTANOIC ACID—185 cks, International Selling Corp, Marseille
HOOF & HORNMEAL—1,100 bgs, Transatlantic Animal By Products Corp, Alexandria
HYDRAZINE HYDRATE—100 dms, E F Drew & Co, Bremen
IODINE CRUDE—100 dms, Bunge Corp, Yokohama
IRON BLUE—43 dms, Van Oppen & Co, Liverpool
IRON OXIDE—1,200 bgs, C J Osborn Co, Malaga
800 bgs, C B Chrystal Co, Malaga
870 bgs, Reichard Coulston, Malaga
50 bgs, Hudson Shipping Co, Oslo
880 bgs, American Chemical & Pigment Co, Malaga
1,000 bgs, Malaga
ISOASCORBIC ACID—40 dms, D F Jonas Co, Genoa
JAPAN WAX—25 cs, Mitsubishi Corp, Kobe
110 bgs, Mitsubishi Corp, Yokohama
KARAYA GUM—249 bgs, Block Drug Co, Bombay
LACTOSE—200 bgs, Amsterdam
LAVANDIN OIL—5 dms, Polarome Manufacturing Co, Cannes
3 dms, Fritzsche Bros, Cannes
5 dms, Cannes
LECHE DE OIE—10 bbls, Salentine & Co, Callao
10 bbls, S American Minerals & Merchandise Corp, Callao
LEMON PEEL—36 bls, Meer Corp, Alicante
66 bls, S B Penick & Co, Alicante
LICORICE EXTRACT—303 bgs, Wm E Martin & Sons, Izmir
LIME OIL—2 dms, Citrus & Allied Essential Oils Co, Puerto Plata
LINDANE—50 dms, International Selling Corp, Marseille
LITHOPONE—50 bgs, C J Osborn Co, Rotterdam
LIVER POWDER, DESSICATED—33 dms, Van Gelder Fanto Corp, Buenos Aires
10 dms, Frank Samuel & Co, London
LOCUST BEAN GUM—250 bgs, Chase Manhattan Bank, Rotterdam
150 bgs, T M Duche & Sons, Rotterdam
50 bgs, Nehls & O'Connell, Genoa
100 bgs, Wm M Allison & Co, Portimao
700 bgs, T M Duche & Sons, Portimao
300 bgs, P A Dunkel, Portimao
455 bgs, J L Quesada, Valencia
400 bgs, Brown Bros, Valencia
400 bgs, J L Quesada, Portimao
LUBRICATING OIL—80 bbls, Hudson Lubricants Co, London
MACE—14 bgs, Knickerbocker Mills, Rotterdam
MAGNESITE—1,000 bgs, Madras
MALEIC ANHYDRIDE—8 dms, Allied Chemical Corp, London
MANNA—5 cs, Max Van Pels, Palermo
MARJORAM LEAVES—40 bls, Hismoco American Co, Marseille
65 bls, Louis Furth, Marseille
MENTHOL—300 cs, Lo Curto & Funk, Santos
150 cs, American Far Eastern Syndicate, Santos
100 cs, Fritzsche Bros, Santos
25 cs, Chas L Huisking & Co, Santos
50 cs, Kane Import Corp, Santos
50 cs, Mitsui & Co, Santos
65 cs, P A Dunkel, Santos
22 cks, Biddle Sawyer Corp, Marseille
25 cs, Lo Curto & Funk, Keelung
4 dms, Mane Fils Inc, Cannes
MERCURY—200 flks, Cadiz
MOLASSES—855 tons, Pacific Molasses Co, Salaverry
MUSTARD SEED—220 bgs, Old Dutch Mustard Co, London
870 bgs, M J Golombeck, Copenhagen
100 bgs, J W Beardsley Sons, London
MYROBALAN EXTRACT—360 bgs, International Products Corp, Hull
NAPHTHALENE—272 bgs, Hudson Shipping Co, London
2,770 bgs, Hudson Shipping Co, Gdynia
500 bgs, Gallard Schlesinger, Antwerp
816 bgs, J N Forker, Hull
1,394 bgs, Koppers Co, Hull
1,000 bgs, Ore & Ferro Corp, Rotterdam
772 bgs, Reichhold Chemical Co, Antwerp
1,4-NAPHTHOCHINON—259 dms, Ciba Co, Gothenburg
NIGER SEED—100 bgs, W L Willner Co, Massawa
175 bgs, Kellogg Seed Co, Massawa
117 bgs, Hinton & Co, Massawa
175 bgs, Massawa
m-NITRO-p-TOLUIDINE — 9 dms, A V Berner, Liverpool
NUTMEG—22 bgs, Catz American Co, Port of Spain
140 bgs, Commercial Bank N Y, Singapore
OAKMOSS—72 bls, Givaudan Corp,, Rijeka
OITICICA OIL—75 dms, Brazilian Industrial Oils Inc, Fortaleza
OLEORESIN PAPRIKA—21 dms, Lo Curto & Funk, Alicante
OLIBANUM GUM—67 bgs, S B Penick & Co, Massawa
73 bgs, Max Van Pels, Massawa
OLIVE OIL—25 dms, J Ossola Co, Genoa
10 dms, Asar Bros, Palermo
25 dms, DeSimone Bros, Seville
50 dms, Marine Midland Trust Co, Seville
50 dms, A Fantis, Seville
50 dms, Ortiz de Taconima, Seville
40 dms, First National Chicago, Seville
20 dms, Meadowbrook Bank, Seville
73 dms, Chemical Bank, Seville
48 dms, Manufacturers Trust Co, Seville
161 dms, Bankers Trust Co, Seville
50 dms, Chase Manhattan Bank, Seville
100 dms, National City Bank, Seville
25 dms, Atlantic Bank of N Y, Seville
100 dms, Hanover Bank, Malaga
100 dms, Bankers Trust Co, Malaga
48 dms, National City Bank, Malaga
98 dms, J H Schroder, Malaga
100 dms, Manufacturers Trust Co, Malaga
100 dms, Swiss Credit Bank, Malaga
71 dms, Irving Trust Co, Malaga
100 dms, Malaga
ORANGE PEEL—167 bgs, S B Penick & Co, Cap Haitien
8-OXYCHINOLIN—2 dms, G A Abood, Rotterdam
PALMKERNEL OIL—2,211 cs, B M T Commodity Corp, Rotterdam
295 tons, Capital City Products, Matadi
400 tons, Balfour Guthrie, Matadi
300 tons, Matadi
PALO SANTO O.L—20 cs, Asuncion
PAPAIN—70 cs, Chas L Huisking & Co, Mombasa
PAPRIKA—200 bgs, Galiagher & Ascher, Alicante
75 bgs, J H Elton, Alicante
240 bgs, A A Sayia, Alicante
50 bgs, H Schlichting, Alicante
70 bgs, McLaughlin Gormley King Co, Alicante
200 bgs, Milwakee Spice Mills, Alicante
150 bgs, J Weinstein, Alicante
300 bms, J Weinstein, Alicante
200 bgs, M J Golombeck, Rijeka
900 bgs, M J Golombeck, Hamburg
400 bgs, R T French, Bremen
200 bgs, Woolson Co, Bremen
PAPRIKA EXTRACT—4 cs, Globe Commerce Co, Alicante
16 cs, J Weinstein, Alicante
PECTIN—18 dms, T M Duche & Sons, Copenhagen
PENNYROYAL—4 bls, S B Penick & Co, Rijeka
PEPPER, BLACK—280 bgs, California Commodities Corp, Singapore
280 bgs, Internatio Rotterdam, Singapore
240 bgs, Cochin
PEPPER, RED—200 bgs, Louis Furth, Iskenderun
140 bgs, M J Golombeck, Iskenderun
100 bgs, Mitsubishi Corp, Kobe
100 bgs, M J Golombeck, Yokohama
PEPPER, WHITE—70 bgs, M J Golomebck, Singapore
70 bgs, K H Landes & Co, Singapore
70 bgs, Atlantic Textile Corp, Singapore
70 bgs, Internatio Rotterdam, Singapore
PERCHLOROETHYLENE—375 tons, International Selling Corp, Marseille
PETROLEUM—24 dms, J M Rodriguez, Buenos Aires
39 dms, Asuncion
PETROLEUM, CRUDE—215,961 bbls, California Oil Co, Mina Al Ahmadi
265,855 bbls, Humble Oil Co, Puerto La Cruz
203,585 bbls, Sohio Petroleum Corp, Maracaibo
PHENYL TRIMETHYLAMMONIUM CHLORIDE—10 dms, Hoffmann-La Roche Inc, Bremen
PHOSPHORUS, RED—50 cs, Bremen
POLLACK LIVER OIL—50 dms, Mitsubishi Corp, Yokohama
POPPY SEED—30 bgs, R J Spitz, Izmir
POPPYSEED OIL—26 dms, Chase Manhattan Bank, Antwerp
POTASSIUM SILICOFLUORIDE—680 bgs, London
POTATO STARCH—210 bgs, B Westergaard & Co, Copenhagen
PYRROLIDONE—9 dms, Gerhard & Hey, Rotterdam
QUEBRACHO EXTRACT—5,570 bgs, American Tanners Ltd, Buenos Aires
2,714 bgs, Tan American Corp, Buenos Aires
1,045 bgs, Barkey Importing Co, Buenos Aires
QUINIDINE SULFATE—5 dms, Bremen
QUININE HYDROCHLORIDE—3 dms, Hamburg
RAPESEED—220 bgs, Hinton & Co, Rotterdam
550 bgs, Hartz Mountain Products, Rotterdam
RICE STARCH—230 bgs, Aurora Manufacturing Co, Trieste
SACCHARIN—44 dms, Yokohama
SAGE OIL—1 dm, International Flavors & Fragrances Inc, Marseille
1 bbl, B Heller & Co, Rijeka
SAPONIN—10 dms, Karr Ellis, Liverpool
SAVORY LEAVES—80 bgs, M J Golombeck, Marseille
SEED OIL—400 bgs, Wm Zinsser & Co, Calcutta
200 bgs, Colony Import & Export Corp, Calcutta
250 bgs, United Shellac Corp, Calcutta
250 bgs, Mantrose Corp, Calcutta
200 bgs, Calcutta
SHELLAC—101 bgs, F H Paul & Stein Bros, Calcutta
325 bgs, Wm Zinsser & Co, Calcutta
600 bgs, Calcutta
SHELLAC WAX—40 bgs, F H Paul & Stein Bros, Bremen
50 bgs, Calcutta
SIENNA—27 dms, Reichard Coulston, Leghorn
SODIUM ALGINATE—42 dms, E Mendell Co, Havre
SODIUM ALUMINATE—400 bgs, Rotterdam
SODIUM BROMATE—150 dms, Rotterdam
SODIUM CHLORITE—50 dms, Wedeman & Godknecht, Bremen
SODIUM CYANIDE—500 dms, Chemical Manufacturing Co, Liverpool
SODIUM CYCLAMATE—40 dms, Cosmos Shipping Co, Yokohama
10 dms, Rotterdam
SODIUM GLUCONATE—1,700 bgs, Rotterdam
SODIUM PERBORATE TETRAHYDRATE—2,179 bgs, Chemical Manufacturing Co, Liverpool
100 bgs, Riches Nelson, Marseille
SQUILL—100 bgs, Meer Corp, Palermo
STRAMONIUM LEAVES—256 bls, Istanbul
SULFUR FLOWERS—9 bgs, U S Rubber Co, Marseille
TALC—8,750 bgs, Charles Mathieu, Genoa
TANKAGE—495 bgs, International Packers Ltd, Buenos Aires
TAPIOCA FLOUR—888 bgs, Morningstar Paisley Inc, Itajai
4,480 bgs, Zilkha & Sons, Lome
TARTARIC ACID—200 bgs, Nyles Trading Co, Genoa
20 dms, W C Sullivan, Marseille
20 bgs, European Chemical Co, Venice
THEOBROMINE—20 dms, Chas L Huisking & Co, Rotterdam
THYME LEAVES—50 bls, Hismoco American Co, Marseille
TOLU BALSAM—10 dms, R D Heins, London
p-TOLUIDINE DIAMINE SULFATE—4 dms, Roux Lab, Dublin
TRAGACANTH GUM—60 bgs, Unico Trading Co, Khorramshahr
47 bgs, Am-Iran Corp, Khorramshahr
51 bgs, Meer Corp, Khorramshahr
TURMERIC—224 bgs, M J Golombeck, Port Au Prince
ULTRAMARINE BLUE—500 bgs, Whittaker Clark & Daniels, Hull
60 drs, Whittaker Clark & Daniels, Hull
ULTRAMARINE ROSE—40 dms, Whittaker Clark & Daniels, Hull
ULTRAMARINE VIOLET—40 dms, Whittaker Clark & Daniels, Hull
UMBER, BURNT—200 bgs, C B Chrystal Co, Larnaca
UREA—1,000 bgs, Nylos Trading Co, Genoa
VANILLA BEANS—10 cs, Madagascar Agencies, Papeete
25 cs, Lo Curto & Funk, Papeete
20 cs, Gillespie & Co, Papeete
15 cs, L A Champon & Co, Papeete
91 cs, Marseille
WATTLE BARK—1,065 bls, Bowring & Co, Cape Town
WATTLE EXTRACT—457 bgs, Tac Tannins & Chemicals Inc, Dar es Salaam
YLANG YLANG OIL—1 ck, George Uhe Co, Marseille
5 bbls, A Verley & Co, Marseille
ZINC SULFATE MONOHYDRATE — 20 bgs, Riches Nelson, Antwerp

Los Angeles

AGAR—30 bbls, Barcelona
CALCIUM NITRATE—37,500 bgs, Wilson & Geo Meyer & Co, Heroya
CARAWAY SEED—50 bgs, Chili Products Corp, Rotterdam
COPPERAS—500 bgs, J G Wiley, Kobe
COPRA—560 tons, Procter & Gamble Co, Medina
6,800 tons, Wells Fargo Bank, Ozamis
DEXTRIN—400 bgs, Morningstar Paisley Inc, Amsterdam
FISHMEAL—1,185 tons, Callao
GLUE—400 bgs, F P Dow, Hull
GYPSUM, CRUDE—17,715 tons, Kaiser Gypsum Co, San Marcos
IODINE, CRUDE—80 dms, Bunge Corp, Yokohama
PAPRIKA—298 bgs, Casablanca
PEPPER, BLACK—280 bgs, Internatio Rotterdam, Singapore
PEPPER, RED—150 bgs, Hismoco American Co, Moji
PETROLEUM, CRUDE—130,606 bbls, Richfield Oil Corp, Punta Cardon
SESAME SEED—250 bgs, W R Grace & Co, Corinto
TAPIOCA FLOUR—4,032 bgs, Morningstar Paisley Inc, Kohsichang
5,264 bgs, Stein Hall & Co, Bangkok
370 bgs, H M Newhall & Co, Bangkok
260 bgs, Morningstar Paisley Inc, Bangkok
UREA—8,500 bgs, H J Baker & Bro, Antwerp

Philadelphia

BONE BLACK—523 bgs, Casablanca
CALCIUM PHOSFATE, DIBASIC—800 bgs, Wessel Duval & Co, Antwerp
CASEIN—400 bgs, National Casein Co, Melbourne
CASTOR OIL—100 tons, Fortaleza
CORN STARCH—300 bgs, Impex Corp, Rijeka
FUEL OIL—113,827 bbls, Hess Inc, Curacao
132,522 bbls, Texaco Co, Trinidad
154,926 bbls, Shell's Refining Co, Las Piedras
GYPSUM, CRUDE—9,948 tons, US Gypsum Co, Hantsport
PETROLEUM, CRUDE—263,684 bbls, Gulf Oil Corp, Lamas
118,613 bbls, Mobil Oil Co, Covenas
141,671 bbls, Mobil Oil Co, La Salina
139,614 bbls, Atlantic Refining Co, Pamatacual
253,378 bbls, Atlantic Refining Co, Puerto La Cruz
150,731 bbls, Atlantic Refining Co, Bahia
226,534 bbls, Texaco Co, Covenas
251,259 bbls, Texaco Co, Pamatacual
RUTILE SAND—2,000 bgs, Metallurgical Inc, Brisbane
SODIUM SILICOFLUORIDE—300 bgs, Riches Nelson, Rotterdam
TAPIOCA FLOUR—4,444 bgs, Stein Hall & Co, Itajai
3,500 bgs, American Metagraph Co, Itajai
550 bgs, American Key Products, Itajai
330 bgs, Itajai
ZIRCON SAND—500 bgs, Metal Traders Inc, Newcastle
9,510 bgs, Newcastle

San Francisco

ASBESTOS FIBER—3,800 bgs, Johns Manville Corp, Capetown
4,000 bgs, Keasby & Mattison, Lourenco Marques
600 bgs, Lourenco Marques
CALCIUM NITRATE—62,500 bgs, Wilson & Geo Meyer & Co, Heroya
CARAWAY SEED—100 bgs, McClintock Co, Rotterdam
CARDAMOM SEED—20 cs, Wheller & Miller, San Jose
COCONUT OIL—188 tons, Procter & Gamble Co, Manila
750 tons, Wells Fargo Bank, Zamboanga
CORN STARCH—800 bgs, J Gomperts & Co, Rotterdam
224 bgs, Rotterdam
GELATIN—56 bgs, B Young, Hamburg
GLYCERINE—290 tons, Procter & Gamble Co, Manila
GYPSUM, CRUDE—10,104 tons, Kaiser Gypsum Co, San Marcos
NAPHTHA—4,307 tons, Tidewater Oil Co, Mina Al Ahmadi
OREGANO—35 bgs, H M Newhall & Co, Callao
167 bgs, H M Newhall & Co, Salina Cruz
PAPRIKA—200 bgs, J Weinstein, Lisbon
300 bgs, B C Ireland, Lisbon
PEPPER, BLACK—175 bgs, Singapore
PETROLEUM, CRUDE—58,430 tons, Tidewater Oil Co, Mina Al Ahmadi
SESAME SEED—50 bgs, W R Grace & Co, Corinto
500 bgs, B C Ireland, Corinto
100 bgs, Hismoco American Co, San Juan del Sur
1,977 bgs, La Union
SULFANILIC ACID—375 bgs, P W Bellingall, Yokohama
TAMARIND POWDER—242 bgs, American Key Products, Bombay
TAPIOCA FLOUR—200 bgs, Morningstar Paisley Inc, Bangkok
6,587 bgs, H M Newhall & Co, Bangkok
UREA—14,250 bgs, Wilson & Geo Meyer & Co, Heroya
WATTLE EXTRACT—445 bgs, Lourenco Marques
210 bgs, Durban

WAXES for every purpose

- CARNAUBA REPLACEMENTS
- JAPAN WAX REPLACEMENTS
- MICROCRYSTALLINE WAXES
- SELF-EMULSIFIABLE WAX
- WATER-SOLUBLE WAX
- WAX EMULSIONS

Write or call:

CONCORD CHEMICAL CO., INC.

Camden 1, New Jersey · Phone: WOodland 6-1526

ALCOHOLS

Methanol • Ethanol • Isopropanol • sec. Butanol • n. Butanol
Methyl Amyl Alcohol • Isobutanol • 2-Ethylhexanol
Isodecanol • Primary Amyl Alcohol
Hexalin® (Cyclohexanol)
n. Propanol

CS
CHEMICAL SOLVENTS, INC.
60 PARK PLACE, NEWARK 2, N. J.
WOrth 2-7763 (N Y) MArket 2-3660 (N J)

Rubber Reclaiming Oils

NEVILLE CHEMICAL COMPANY • Pittsburgh 25, Pa.
Manufacturers of Hydrocarbon Resins, Oils and Solvents
NEVILLE

PHOSPHORIC ACID, 85% N. F.
Tank Trucks, Drums, Carboys

PHOSPHORIC ACID, 80% F. G.
Tank Cars, Tank Trucks

PHOSPHORIC ACID, 75% F. G.
Tank Cars, Tank Trucks, Drums, Carboys

DOMESTIC and EXPORT

RN

MURRAY HILL 7-7267
RICNELCHEM, N. Y.

RICHES-NELSON, INC.
Chemicals and Allied Products
342 MADISON AVENUE, NEW YORK 17 N Y
European Affiliate
RICHES-NELSON, S P R L 72 Ave Brillat-Savarin, BRUXELLES BELGIUM

chromic formate

by
FIBER CHEMICAL CORPORATION
Manufacturers of Chrome Chemicals
P. O. Box 218, MATAWAN, N. J. Tel.: LOwell 6-1100

DIETHYL CARBAMYL CHLORIDE

DIMETHYL CARBAMYL CHLORIDE

MANUFACTURED BY
gamma chemical corporation
GREAT MEADOWS, N. J.

SOLE SALES AGENTS
Fisher chemical co., inc.
335 LEXINGTON AVE., NEW YORK 17, N. Y.
MURRAY HILL 2-2587
CABLE ADDRESS: PHARCHEM

"No, I'm not kidding. You can get all you need now. Celanese just opened up a 25-million pound capacity for 1,3-Butylene Glycol. It's the only one in the country."
Celanese®
Celanese CHEMICALS